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VOLUME 18 APRIL-MAY-JUNE, 1921 NUMBER 2

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BULLETIN

OF

THE OKLAHOMA AGRICULTURAL AND MECHANICAL COLLEGE

CATALOG 1920-1921

WITH ANNOUNCEMENTS FOR 1921-1922

PUBLISHED QUARTERLY BY
OKLAHOMA AGRICULTURAL AND MECHANICAL COLLEGE
STILLWATER, OKLAHOMA

ENTERED MARCH 9, 1903, AS SECOND CLASS MATTER, UNDER ACT OF CONGRESS OF JULY 16, 1894. ACCEPTANCE FOR MAILING AT SPECIAL RATE OF POSTAGE PROVIDED FOR IN SECTION 1103, ACT OF OCTOBER 3, 1907. AUTHORIZED SEPTEMBER 17, 1918

BULLETIN

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THIRTIETH ANNUAL CATALOG

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Entered as second-class matter March 9, 1903, at the Postoffice at Stillwater, Oklahoma, under Act of July 16, 1894. Acceptance for mailing at special rate of postage, provided for in section 1103, Act of October 3, 1917, authorized September 17, 1918

CHART OF OKLAHOMA A. & M. COLLEGE WORK

Oklahoma Agricultural and Mechanical College

The College, after twenty-nine years of development consists of 166 teachers and officers, a group of twenty-two brick and stone buildings, a science equipment costing more than a quarter of a million dollars, and 1,000 acres of land. Total value of buildings, grounds and equipment, $1,310,908.17

1. Resident Instruction

Four-Year Courses in
- Agriculture
- Engineering
- Home Economics
- Science and Literature
- Education
- Veterinary Medicine
- Commerce and Marketing
- Music

Two-Year Courses in—
- Vocational Agriculture
- Vocational Home Economics
- Trades and Industries
- Secretarial Training

Short Courses for—
- Dairymen
- Farm Boys
- Farmers
- Engineers
- Teachers

2. Experimentation and Research

The Agricultural Experiment Station carries out investigations along agricultural and related lines. Subjects of investigation are: Crops, soils, fertilizers, feeds, feeding, plant and animal breeding, and diseases,and pathological, physiological conditions of plants and animals, veterinary medicine, etc.

Bulletins and an Annual Report are published for free circulation.

3. Extension Service

Agricultural Extension, under the terms of the Smith-Lever Act—County Agent work in Agriculture and Home Economics.

Lectures at Farmers' Institutes and other meetings.

Organizing Boys and Girls Clubs at home for the study of Agriculture, Domestic Art and Science, and related subjects.

Bulletins, circulars and annual reports are published for free circulation.

Oklahoma Farmers' Congress.

COLLEGE CALENDAR

FIRST SEMESTER

1921

September 6, Tuesday—Entrance Examinations; General Faculty Meeting, 9:00 a. m.
September 6 and 7, Tuesday and Wednesday—Registration.
September 8, Thursday—Classwork Begins, 8:00 a. m.
September 9, Friday—President's Reception to Faculty and New Students, 8 p. m. in Gymnasium.
September 13, Tuesday—First Student Assembly, 10 a. m.
November 11, Friday—Armistice Day,—Half holiday starting at 12:00 m.
November 24, Thursday, Thanksgiving—A Holiday.
December 23, Friday—Christmas Holidays begin, 8:00 a. m.

1922

January 3, Tuesday—Work of First Semester Resumes, 8:00 a. m.
January 20, Friday—First Semester Closes, 12 m.

SECOND SEMESTER

January 23, Monday—Entrance Examinations.
January 24, Tuesday, 1:00 p. m.—Registration Begins.
January 26, Thursday—Classwork Begins, 8:00 a. m.
February 22, Wednesday—Washington's Birthday, a Holiday.
March 25, Friday—Easter Recess Begins, 12:00 m.
March 29, Tuesday—Classwork Resumes, 8:00 a. m.
May 21, Sunday—Baccalaureate Sermon.
May 27, Saturday—Commencement Day.
May 30, Tuesday—Decoration, Day,—a Holiday.
June 2, Thursday—Second Semester Closes.

SUMMER SESSION

May 31, Wednesday—Summer Session Opens.
July 4, Independence Day, a Holiday.
July 29, Friday—Summer Session Closes.

(The Faculty reserves the right, without further notice, to modify any announcement made in this catalog, if circumstances render such change necessary, and in any event will be bound by it for only the year following the date of publication.)

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R. C. SHIFLETT, B. S., Oklahoma A. and M. College; *Assistant*, Panhandle Ditsrict.
MRS. DAISY M. FRAZIER, *Woman's District Agent*, Western Counties.
MISS ANNA LEE DIEHL, *Woman's District Agent*, Eastern Counties.
W. A. HILL, All Negro Work.

COUNTY AGENTS

G. E. DAVIS, Stillwell, Adair County.
G. F. NEWTON, Cherokee, Alfalfa County.
T. J. ELDRIDGE, Sayre, Beckham County.
J. M. RAPP, B. A., Ohio Northern University, Watonga, Blaine County.
G. B. DUNLAPP, B. S., Oklahoma A. and M. College, Durant, Bryan County
I. E. NUTTER, Anadarko, Caddo County.
F. K. WEST, El Reno, Canadian County.
J. W. SIMPKINS, Ardmore, Carter County.
J. A. WYATT, Hugo, Choctaw County.
CARL ANDREW, B. S., Oklahoma A. and M. College, Boise City, Cimarron County.
P. K. NORRIS, Norman, Cleveland County.
W. T. YOAKUM, Coalgate, Coal County.
G. E. THOMAS, Vinita, Craig County.
J. W. RILEY, Bristow, Creek County.
C. H. GUERNSEY, Clinton, Custer County.
W. F. PORTER, Taloga, Dewey County.
TOM M. MARKS, Arnett, Ellis County.
D. T. MEEK, Enid, Garfield County.
A. T. BURGE, Pauls Valley, Garvin County.
A. F. HOUSTON, Chickasha, Grady County.
R. T. LEE, D. V. M., Southwestern Veterinarian College, Mangum, Greer County.
E. A. PORTER, B. S., University of Illinois, Buffalo, Harper County.
J. L. SCHAD, Stigler, Haskell County.
T. A. VANDERPOOL, Holdenville, Hughes County.
R. E. BERRY, B. S., Oklahoma A. and M. College, Altus, Jackson County.
C. P. COX, Waurika, Jefferson County.
J. P. GRAY, Tishomingo, Johnston County.
W. F. GRAY, B. S., Oklahoma A. and M. College, Newkirk, Kay County.
CLYDE McFFEATERS, Kingfisher, Kingfisher County.
A. I. JORDAN, Hobart, Kiowa County.
N. C. WARD, Wilburton, Latimer County.
H. W. C. SHELTON, Poteau, LeFlore County.
J. W. GUIN, Chandler, Lincoln County.
J. R. WILEY, Guthrie, Logan County.
R. F. WATERS, B. A., University of Arkansas, Marietta, Love County.
WORD CROMWELL, Purcell, McClain County.
A. L. EDMIASTON, Idabel, McCurtain County.
H. L. BANKHEAD, Eufaula, McIntosh County.
H. B. BINKLEY, Fairview, Major County.
W. E. MARTIN, Madi l, Marshall County.
C. R. JACKSON, Pryor, Mayes County.
S. E. LAIRD, Perry, Noble County.
H. M. WOLVERTON, Nowata, Nowata County.
E. A. KISSICK, Okemah, Okfuskee County.

C. R. DONART, B. S., Oklahoma A. and M. College - Oklahoma City, Oklahoma County.
D. P. TRENT, B. S., Oklahoma A. and M. College, - - - Okmulgee, Okmulgee County.
S. M. McCUISTION, - - - - - - - - - - - - Pawhuska, Osage County.
JAS. LAWRENCE, - - - - - - - - - - - - - Miami, Ottawa County.
M. T. MAUDLIN, - - - - - - - - - - - - - Pawnee, Pawnee County.
L. E. RATHBUN, - - - - - - - - - - - - - Stillwater, Payne County.
E. B. NELMS, B. S., Oklahoma A. and M. College, - - - McAlester, Pittsburg County.
J. B. HILL, - - - - - - - - - - - - - - - Ada, Pontotoc County.
E. R. HENSON, B. S., Oklahoma A. and M. College, - - Shawnee, Pottawatomie County.
J. R. WALDBY, - - - - - - - - - - - - Cheyenne, Roger Mills County.
J. R. SPENCER, B. S., Oklahoma A. and M. College, - - Claremore, Rogers County.
H. G. HOWARD, - - - - - - - - - - - - - Wewoka, Seminole County.
FRED INGRAM, - - - - - - - - - - - - - - Sallisaw, Sequoyah County.
B. F. HARRISON, B. S., Oklahoma A. and M. College, - - Duncan ,Stephens County.
J. B. HISEY, - - - - - - - - - - - - - - Guymon, Texas County.
S. D. JOHNSON, - - - - - - - - - - - - Frederick, Tillman County
J. S. MALONE, B. S., Oklahoma A. and M. College, - - - - Tulsa, Tulsa County.
C. M. HUBBARD, - - - - - - - - - - - - Wagoner, Wagoner County.
C. C. PORTER, - - - - - - - - - - - Bartlesville, Washington Conuty.
H. GARLAND, - - - - - - - - - - - - - Cordell, Washita County.
W. D. KENNON, B. S., Oklahoma A. and M. College, - - - Alva, Woods County.
F. R. MERRIFIELD, B. S., Oklahoma A. and M. College, - Woodward, Woodward County.

COLORED AGENTS

P. M. MANN, - - Okmulgee, Okmulgee County and southwest quarter of Wagoner County.
W. M. MINGO, - - - - - - - Chandler, Lincoln County and Creek County.
JAS. V. KING, - Muskogee, Muskogee county and southeast quarter of Wagoner County.
L. W. PRESLEY, B. S., C. A., and N. U., Langston, Oklahoma; Eufaula, McIntosh County.
J. W. SHOALS, - - - - - - - - - - - - - Idabel, McCurtain County.
J. E. TAYLOR, B. S., Alcorn A. and M., - - - - - - - Boley, Okfuskee County.
E. R. MOORE, B. S., Iowa State College, - - - - - - Wewoka, Seminole County.
LAFAYETTE SHAWNEE, - - - - - - - - - - Kingfisher, Kingfisher County.
GEO. W. POWDRILL, - - - - - - - - - - - Guthrie, Logan County.

COUNTY HOME DEMONSTRATION AGENTS

MISS FANNIE BUIE, - - - - - - - - - - - Durant, Bryan County.
MISS VERA MILLER, - - - - - - - - - - Anadarko, Caddo County.
MRS. MARY B. RUFF, - - - - - - - - - - El Reno, Canadian County.
MRS. MINNIE B. CHURCH, - - - - - - - - - - Ardmore, Carter County.
MISS LENA SPEER, - - - - - - - - - - - Lawton, Comanche County.
MISS EDNA I. WHITAKER, - - - - - - - - - - Bristow, Creek County.
MISS LENA BLAIR, - - - - - - - - - - - Clinton, Custer County.
MRS. A. N. SOUTHWICK, - - - - - - - - - - - Enid, Garfield County.
MRS. LENA GENTRY, - - - - - - - - - - Pauls Valley, Garvin County.
MRS. NETTIE R. CORYELL, - - - - - - - - - - Chickasha, Grady County.
MRS. HELEN CONDON, - - - - - - - - - - - Mangum, Greer County.
MRS. IDA E. SWEET, - - - - - - - - - - - Buffalo, Harper County.
MRS. ELIZABETH WARD, - - - - - - - - - Wilburton, Latimer County.
MRS. MARY A. E. SHELTON, - - - - - - - - - - Poteau, LeFlore County.
MRS. MARY R. LANGTON, - - - - - - - - - - Guthrie, Logan County.
MISS GRACE CLOWDIS, - - - - - - - - - - Idabel, McCurtain County.
MRS. FLORA BEVER, - - - - - - - - - - - Fairview, Major County.
MISS MAUD ANDREWS, B. S., Oklahoma A. and M. College, - Madill, Marshall County.
MISS VERA JONES, - - - - - - - - - - - - Pryor, Mayes County.
MISS RUBY MABRY, - - - - - - - - - - - Muskogee, Muskogee County.
MRS. LULU S. GREEN, - - - - - - - - - - Muskogee, Muskogee County.
MISS ELIZABETH RICHARDSON, - - - - - - - - Perry, Noble County.
MRS. ANNIE F. RICHARDS, - - - - - - - - - Okemah, Okfuskee County.

MISS ITA ROSS, - - - - - - - - - - Oklahoma City, Oklahoma County.
MISS VERA WOODWORTH, - - - - - - - - - Okmulgee, Okmu'gee County.
MRS. GINEVRA LOHMAN, A. B., University of Texas, - - Pawhuska, Osage County.
MRS. LYIE BRECKNER, - - - - - - - - - McAlester, Pittsburg County.
MRS. ELVA R. DUVALL, - - - - - - - - - Oakman, Pontotoc County.
MRS. LILLIE WOLFE, - - - - - - - - - Antlers, Pushmataha County.
MRS. MYRTLE WATSON, - - - - - - - - - Claremore, Rogers County.
MRS. ETHEL HOWARD, - - - - - - - - - Wewoka, Seminole County.
MRS. EVA MOSTELLER, - - - - - - - - - Frederick, Tillman County.
MRS. KATHERYN JACKSON, - - - - - - - - - Tulsa, Tulsa County.
MRS. SADIE B. GROMMET, - - - - - - - - - Tulsa, Tulsa County.
MISS DADIE DUVALL, - - - - - - - - - Wagoner, Wagoner County.
MISS IVA M. BURCH, - - - - - - - - - Bartlesville, Washington County.
MRS. EMMA STEWART, - - - - - - - - - Woodward, Woodward County.

WOMEN AGENTS (COLORED)

MRS. ETHEL WHITE BREWER, - Muskogee, Muskogee County and Wagoner County.
MRS. ANNIE PETERS, - - - - Boley, Okfuskee County and Seminole County.
MISS MAUD SMITH, - - - Okmulgee, Okmulgee County and McIntosh County.
MISS CAMILLA STEWART, - - - - - - - - Chandler, Lincoln County.

STANDING COMMITTEES OF THE FACULTY

ENTRANCE
GUNDERSON, *Chairman*; KEZER, PATTERSON, ROCKEY, POFFENBERGER

COLLEGE GOVERNMENT
KEZER, *Chairman*; PATTERSON, BEESON

TEXTBOOKS
JONES, *Chairman*; MARTIN, MICHAELS

GRADES AND REPORTS
GUNDERSON, *Chairman*; CHAMBERS, TALBOT

DORMITORY
BEESON, *Chairman*; LOVELACE, HARTSOCK

STUDENT PLAYS AND SOCIAL ENTERTAINMENT
PATTERSON, *Chairman*; ARNOLD, LOVELACE

COURSES OF STUDY
LEWIS, *Chairman*; DEANS OF SCHOOLS

LITERARY SOCIETIES
ROCKEY, *Chairman*; MOUNTCASTLE, ARNOLD

CATALOG AND COLLEGE PUBLICATIONS
BAGBY, *Chairman*; DEANS OF SCHOOLS

SCHEDULE
LANE, *Chairman*; DOWELL, McELROY

DINING HALL SUPPLIES
OTEY, *Chairman*; TALBOT, BUTTS

STUDENT LABOR
HARTSOCK, *Chairman*; ROLFS, DOWELL

ATHLETIC COUNCIL
LEWIS, *Chairman*; GALLAGHER, CRAIG, BRINGHURST, HUNT

AFFILIATED SCHOOLS
McCARREL, *Chairman*; CALDWELL, MOUNTCASTLE

LIBRARY
WHITENTON, *Chairman*; CHAMBERS, MERRITT, KNIGHT

RULES AND REGULATIONS
DOWELL, *Chairman*; KEZER, LOVELACE

GRADUATE COURSES
SANBORN, *Chairman*; PATTERSON, GUNDERSON, CHAMBERS

AGRICULTURAL PUBLICATIONS
KNIGHT, *Chairman*; BENTLEY, PRESIDENT

BOARDING AND ROOMING HOUSES
BEDINGER, *Chairman*; CALDWELL, LOVELACE, DAANE

ADVANCED STANDING
WHITENTON, *Chairman*; CHAMBERS, JONES, POFFENBERGER, DEANS OF SCHOOLS

FORENSIC
D. T. MARTIN, *Chairman*; CALDWELL, JONES

CONVOCATION
HARTSOCK, *Chairman*; MICHAELS, MAKOVSKY

OKLAHOMA AGRICULTURAL AND MECHANICAL COLLEGE

GENERAL INFORMATION

The Oklahoma Agricultural and Mechanical College and Agricultural Experiment Station was located and established by an act of the First Legislative Assembly, this act becoming effective on December 25, 1890. A locating board was appointed June 1, 1891, to secure a location for the College and on July 11 this board reported back to the Governor that the College had been located on 200 acres of ground immediately adjoining the City of Stillwater on the northwest.

The Board of Regents appointed by the Governor held their first meeting in Guthrie on the 25th of June, 1891, and elected R. J. Barker president of the Board and A. A. Ewing, treasurer. On August 14, 1891, R. J. Barker was elected president of the College and Dr. J. C. Neal was elected director of the Experiment Station. The College was formally opened on December 14, 1891, in the Congregational church in Stillwater with an attendance of forty-five students.

The first College building was completed and formally dedicated on June 14, 1894. From the first the character of the work of the College and its place in the development of the State has been emphasized. After the election of the President and Director, the first teaching member of the faculty selected was a professor of agriculture, A. C. Magruder who was elected Professor of Agriculture and Horticulture on November 25, 1891. The various lines of work of the new institution were soon outlined, and provided for. Work in Chemistry was provided for in February, 1892. Horticulture as a separate department was provided for in 1893, Engineering in 1896, Home Economics in 1900, Education in 1913, and Commerce and Marketing in 1914.

All of the major work of the College that was at the beginning organized as departments with one teacher has grown in importance and strength until now the work of the College is organized as Schools with dean and corps of teachers to handle the special work of that division.

LAWS CONCERNING THE COLLEGE

The A. and M. College owes its origin to a bill offered by United States Senator Morrill of Vermont in 1862, which provides funds for one such institution of learning in each State of the Union, and sets aside certain public lands from which endowments have come to each of these State and Federal colleges. Therefore these institutions are known as "The Land Grant Colleges".

This Act of Congress, approved July 2, 1862, gave to each State which accepted its provisions 30,000 acres of government land for each of its Representatives in Congress, the proceeds to be applied to the endowment and maintenance of colleges

> "where the leading subject shall be, without excluding the other scientific and classic studies, and including military tactics, to teach such branches of learning as are related to agriculture and mechanic arts, - - - in order to promote the liberal and practical education of the industrial classes in the various pursuits and professions of life."

Again, in 1887, Congress provided for an Agricultural Experiment Station in connection with each of the Land Grant Colleges:

> "That in order to aid in acquiring and diffusing among the people of the United States useful and practical information on subjects connected with agriculture and to promote scientific investigation and experiments respecting the principles and application of agricultural science, there shall be established under the direction of the College in each State and Territory, established - - - in accordance with an - - - 'Act donating public land to the several States and Territories which may provide colleges for the benefit of agriculture and the mechanic arts' - - - a department to be known and designated as an 'Agricultural Experiment Station'."

The First Legislature of the Territory of Oklahoma adopted a resolution assenting to and accepting the provisions of Congress and established the Oklahoma Agricultural and Mechanical College in Payne county, at Stillwater, December 25, 1890.

Congress also provided 250,000 acres of public land as a permanent endowment for the College in the Enabling Act granting statehood to Oklahoma.

The Oklahoma Constitution provides that the State Board of Agriculture shall be the Board of Regents of the A. and M. College in the following:

> "Said Board (of Agriculture) shall be maintained as a part of the State Government and shall have jurisdiction over all animal quarantine regulations and shall be the Board of Regents of all State Agricultural and Mechanical Colleges."

The Oklahoma Constitution is the only State Constitution recognizing the fundamental importance of agriculture and domestic science. It declares that—

> "The Legislature shall provide for the teaching of agriculture, horticulture, stock-feeding and domestic science in the common schools of the State."

According to the laws of Oklahoma *"The Agricultural and Mechanical College shall be the technical head of the Agricultural, Industrial and allied Science system of education in Oklahoma"*.

In 1914 Congress adopted the Smith-Lever Bill, which provided:

> "That in order to aid in diffusing among the people of the United States useful and practical information on subjects relating to agriculture and home economics, and to encourage the application of the same, there may be inaugurated in connection with the college or colleges in each State - - - agricultural extension work which shall be carried on in cooperation with the United States Department of Agriculture - - - That cooperative agricultural extension work shall consist of the giving of instruction and practical demonstrations in agriculture and home economics to persons not attending or resident in said colleges in the several communities, and imparting to such persons information on said subjects through field demonstrations, publications, and otherwise; and this work shall be carried on in such manner as may be mutually agreed upon by the Secretary of Agriculture and State agricultural college or colleges receiving the benefits of this Act."

Through the acceptance of the terms of this Act by the Oklahoma State Legislature at the following session, the Agricultural and Mechanical College became the head of such cooperative extension work in Oklahoma.

The Reserve Officers Training Corps of the College was created as a result of an Act of Congress adopted in 1916 providing that:

> "The President is hereby authorized to establish and maintain in civil educational institutions a Reserve Officers Training Corps which shall consist of a senior division organized at universities and colleges requiring four years of collegiate study for a degree, including State universities and those State institutions that are required to provide instruction in military training under the provisions of the Act of Congress of July 2, 1862, donating lands for the establishment of colleges where the leading object shall be practical instruction in agriculture and mechanic arts, including military tactics, etc."

The Sixty-Fourth Congress adopted what is known as the Smith-Hughes Bill, entitled:

> "AN ACT to provide for the promotion of vocational education; to provide for cooperation with the State in the promotion of such education in agriculture and the trades and industries; to provide for cooperation with the States in the preparation of teachers of vocational subjects; and to appropriate money and regulate its expenditure."

SOURCES OF REVENUE

The Agricultural and Mechanical College derives support from both Federal and State Governments:

1. A fund derived from the United States Government, known as the "Morrill Fund". This fund can be expended only for instruction of students in literature, languages, the sciences, and, by

recent amendment, to prepare school teachers in the principles of agriculture and home economics.

2. The United States Government funds for investigation of scientific and agricultural matters of importance to farmers, and for publishing the results of such tests and experiments, known as the Hatch and Adams Funds. These support the Oklahoma Agricultural Experiment Station.

3. A fund derived from the rentals of public lands donated by Congress to the Oklahoma A. and M. College under the Enabling Act granting statehood to Oklahoma, known as the "Land Lease Fund". This fund may be used for operating expenses of the College proper.

4. A fund appropriated annually or biennially by the State for buildings, repairs and extensions to the permanent equipment of the A. and M. College.

5. The Smith-Lever Bill, adopted by the Sixty-Third Congress, provides increasing support for cooperative agricultural extension work for a period of ten years, when the permanent basis of this support is reached. This fund is dependent upon cooperative support by the State and is available only for agricultural extension work.

6. An allowance established by an Act of Congress organizing the Reserve Officers Training Corps, and which provides pay and uniforms to certain military students under prescribed restrictions.

ORGANIZATION OF COLLEGE

The service rendered by the institution, is represented by three divisions:

(1) The College proper for resident instruction,

The function of the College is to educate and train students in the sciences which relate to industry, and in such other subjects as will give a broad and liberal education, as a means of developing character, increasing efficiency, and assuring a high standard of citizenship.

The College comprises thirty-six departments, organized under seven different schools, which offer distinct courses of instruction to those who apply for graduation.

(2) The Agricultural Experiment Station.

Under Act of Congress of 1889, known as the Hatch Act, an

agricultural experiment station has been established to carry forward investigations in agriculture of a research or experimental nature, to learn and make known such facts as may be of importance to the farmers of the state. Through the agency of the Agricultural Experiment Stations established in the various states and the United States Department of Agriculture, agriculture has become a well established science as well as an art.

(3) The Extension Division.

Under Act of Congress of 1914, known as the Smith-Lever Act, cooperative extension work has been established in connection with the Agricultural College, whose function it is to instruct citizens of the state, who are not residents of the College, in the best proven methods of economic agriculture and home economics.

The Oklahoma Agricultural and Mechanical College is supported by funds received from the Federal Government and from the State of Oklahoma as a part of the free school system of the State. Tuition is free in all courses and departments.

BUILDINGS AND EQUIPMENT

Starting in 1892 with Old Central building (the original structure on the campus and which now stands as a landmark) Oklahoma Agricultural and Mechanical College has a main plant consisting of twenty-two buildings, twelve classed as major buildings and ten as minor. In addition, there are many smaller, subsidiary structures such as residences, the athletic field stands, memorials and barns. The buildings are well equipped with extensive modern laboratory apparatus. The campus covers 80 acres, the farm 920. While the valuation of the college plant based on the cost of construction in the various years is $1,500,000. The plant could not be replaced at the present time for less than $3,000,000.

Morrill Hall.—This is a three-story building of brick and stone construction, 76×166 feet, which was erected in 1906 at a cost of $74,600.00. By act of the Legislative Assembly providing for its construction it was named in honor of Senator Justin S. Morrill. It contains quarters for administration and business offices of the A. and M. College and Agricultural Experiment Station, lecture-rooms and laboratories for the Departments of Agronomy, Animal Husbandry, Horticulture, Botany, Entomology, and is the headquarters of the Extension Division.

Engineering Building.—This building was erected in 1912 at a cost of $74,994.50. It is three stories in height and covers 160×80 feet. It is of reinforced concrete and brick construction, with stone trimmings. On the ground floor are located the steam and hydraulic laboratories and boiler-room, the electrical laboratories, civil engineering laboratories for testing cement, masonry and steel, rooms for surveying instruments, storage-batteries, standardizing room, men's locker room, and office. On the next floor are the engineering library, the physical laboratory and lecture-room, four other lecture-rooms for the various departments, and rooms for photometry, physical apparatus, stock and women's lockers. On the top floor are the quarters for the Department of Architectural Engineering, consisting of a lecture-room, library and reading-room, and a large drafting-room. There are also on this floor four drawing and lecture-rooms for the use of other departments, rooms for records, and offices for instructors.

New Gymnasium.—This building was erected in 1919 to be used as a gymnasium and armory at a cost of $100,000. It has an outside measurement of 176x108 feet and is two stories in height, with a balcony. The central part of the building is used for a gymnasium; the west wing for the armory and offices of the military department, the east wing being occupied by a swimming pool, 61x29 feet. The main floor of the gymnasium, which is used by classes in physical education for men and by varsity and class teams in basket-ball, wrestling and gymnastics and as a place for many student social activities, is 115x88 feet. The floor and walls are equipped with modern gymnasium apparatus. A balcony used as a running track as well as a seating space for spectators extends around and above the floor. The running track is 19 laps to the mile. On the lower floor are locker rooms for classes and members of the varsity athletic teams, dressing rooms, shower baths, and equipment rooms. Headquarters of the departments of physical training and athletics are in offices on the first floor.

Auditorium.—This building, which is of reinforced concrete construction, with stone trimmings, was erected in 1912 at a cost of $84,075.28. It has a sloping floor, large balcony, roomy stage, with dressing rooms and accessories, and a seating capacity of 2,500.

Chemistry Building.—In 1919 a new Chemistry Building was

constructed at a cost of approximately $100,000.00. This will house the Chemistry Departments of the College and Station.

Home Economics.—This building which is of brick and reinforced concrete construction with stone trimmings was completed in January, 1921, at a cost of $160,000. This building covers an area of 64x132 feet and is three stories in height. On the first floor are the offices of the School of Home Economics, a library room, large dining room, a nutrition laboratory and store room, kitchenette, pantry, textile testing laboratory, laundry and locker rooms. On the second floor there are food laboratories, sewing laboratories, with the necessary fitting rooms, a nutrition laboratory and an experimental kitchen. The third floor contains two offices, one small and one large lecture room, three art studios, a quiet room and laboratories for costume designings and home nursing. The equipment throughout is of the latest design in scientific laboratory equipment adapted to the uses of the various lines of work offered in the several departments of the School of Home Economics.

Library Building.—This is a two story building of reinforced concrete and brick trimmed in stone. The building, costing $100,000 and completed in 1921, covers an area of 65x137 feet. The first floor contains six class or reference rooms, two offices and three store and work rooms. The second floor is used as the main reading room and also contains the offices of the librarian and assistant librarian and a catalogue room. Over the center of the main reading room a lantern or clay story is built which adds much to the lighting of the main room which has large windows on two sides. The stack room extends across the entire west end of the building and has an area of 24x65 feet, on which the stacks are arranged in four tiers or stories.

Biology Building. (Old Library.)—This building, which is of brick and stone construction, was erected in 1901 at a cost of $48,417.42. It is two stories in height with a full basement. It is 72x76 feet with a wing 111x65. It is the home of the School of Veterinary Medicine, the Department of Zoology, the Department of Foreign Languages, and other rooms are used by various other departments. It formerly housed the library.

Woman's Building.—This building is of brick and stone construction and was erected in 1910 at a cost of $62,000.00. It has contained a gymnasium for the use of the women, a dining hall,

kitchen, reception hall, parlor, classrooms for the Domestic Science and Domestic Arts departments, and living rooms for the accommodation of the women students. The rooms are electric lighted, steam heated, and all halls are equipped with lavatories and baths. The building will be used in the future for housing women students, the space on the two lower floors formerly used by the other departments being converted into living rooms for the women students.

Men's Dormitory.—This building, which is of brick construction, was erected in 1910 at a cost of $25,000.00. It is three stories in height, and is equipped with all modern conveniences.

Central Building.—This is the first building erected upon the campus of the A. and M. College. It is a two-story brick and stone building with basement, covering a space of 66× 60 feet, erected in 1892 at a cost of $25,000.00. It is used for class rooms.

Rural Engineering Building.—This building, which is of brick construction, was erected in 1906 at a cost of $12,000.00. It houses the Department of Rural Engineering for laboratory and class room purposes, and the Department of Printing.

Old Engineering Building.—This building is of brick and stone construction with two stories and basement. It was erected in 1902 at a cost of $8,000.00, and is occupied by the Departments of Music and Secretarial Training.

Livestock Judging Pavilion.—This building was erected in 1910 at a cost of $15,240.00. It is a two-story brick structure, which, by provision of the Seventh Legislative Assembly, was converted into a men's dormitory.

Education Building. (Old Chemistry.)—This building was erected in 1898 at a cost of $12,000.00. It is a two-story brick structure with basement. The main portion of the building is 64x42 feet with a wing 54x42 feet. It has been remodeled and now houses the School of Education—classrooms and laboratories.

Shop Building.—This building, which is of stone and brick construction, was erected in 1912 at a cost of $4,420.00. It is 40× 200 feet, and for a depth of 80 feet it is two stories high, and the remainder is one story. This building provides accommodations for the carpenter, machine and blacksmith shops and foundry, and has up-to-date toolrooms.

Dairy Building.—This building is of brick construction, two stories in height. It was erected in 1904 at a cost of $7,947.74.

The main portion of the building is 60×30 feet, two stories in height, and a one-story addition is 50×32 feet. It contains classrooms and laboratories for the Dairy Department, and a commercial creamery for experimental and instructional purposes.

Heating Plant.—The heating plant, which is of reinforced concrete construction, was erected in 1912 at a cost of $40,000.00. It furnishes heat and light for all College buildings, and power for the shops.

Poultry Building.—The main building for laboratory and classrooms was erected in 1913 at a cost of $2,978.00. In addition to the main building there are a score or more of colony houses and a long laying house, and complete equipment for research and teaching.

Greenhouse.—The Greenhouse was erected in 1909 at a cost of $5,000.00.

Apiary and Insectary.—This building is of wood construction, erected in 1913 at a cost of $1,936.30. It houses laboratories for the Department of Entomology. A cupola is provided with a modern insect trap to aid in the study of winged insects.

There are at present six barns, which may be enumerated as follows:

A Dairy Barn, is now under construction. It has a capacity for eighty cattle. It is to be modern in every respect and will cost $20,000.00.

Brick barn, 60×90 feet, originally costing $7,500.00, is used for the housing of the horse herd.

Cattle barn, originally costing $8,000.00, for the present houses the dairy and beef stock.

Sheep barn, originally costing $8,000.00.

Hog barn, costing $1,000.00.

Veterinary barn, which also contains laboratories used by the Veterinary Department, originally costing $2,402.35.

Besides these barns, there is a seed-house upon the agronomy farm, and two barns used for housing work-stock.

Residences.—Residences are provided for the President, Home Economics practice house, the superintendent of the green house and campus, foreman of the College farm, foreman of the agronomy experimental farm, and superintendent of the agronomy experimental farm.

LIBRARY

The new O. A. M. C. Library Building is built of brick and stone, and is designed in harmony with the newer structures on the campus in a modification of Italian Rennaissance.

The first floor contains six lecture-rooms and two offices, together with the smaller necessary rooms in connection with the well-equipped library. This floor is reached by two secondary entrances on the south side. A broad flight of stairs on the east end of the building leads to the loggia with its imposing Palladin motif. From here an interior stair brings one to the library floor with its great central reading-room, surrounded by six smaller special divisions, set off by columns. A superstructure above the center admits light to the main reading-room, and adds height and dignity to the interior.

The delivery desk, catalog room, and offices in the west end of the building connect directly with the stackroom. This runs the entire height of the two floors, and is divided into four stories by light steel stacks and runways.

There are now 26,503 bound volumes in the library. There are over 90,000 unbound pamphlets, which are arranged and classified for quick reference work. In addition, the library possesses over 50,000 unbound periodicals, which are rapidly being bound. The library receives about 400 of the leading newspapers and periodicals of the United States. Large dailies of the United States are kept on the newspaper racks for the use of the students, and most of the magazines indexed in the Reader's Guide are on the shelves. Daily attendance is large, and is increasing. The library is kept open until 10 o'clock in the evening.

Purpose.—It is the purpose of the Librarian not only to supplement the work of every department, but also to make the library the center of all literary activity of the College. Every effort is made to assist the students in the use of reference books, catalogs and indexes, and to familiarize themselves with the best books and use of bibliographies.

Valuable Gifts.—The library has been enriched by the gift from the Carnegie Institution of Washington of all their publications, and also by the studies from the Rockefeller Institute of Medical Research. Each of these great institutions has placed the library on

the "Omnia List". Other valuable gifts include several thousand periodicals and several thousand books.

Regulations.—Books may be drawn for a period of two weeks by all the officers and students of the College, and by others having special permission. General reference, reserve books, periodicals and dictionaries must be consulted in the reading-room, and not drawn from the library. Citizens and visitors, whether connected with the College or not, are invited to make free use of the reading and reference-room, and assistance in reference work will gladly be given them.

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STUDENTS EXPENSES

DEPOSITS

A deposit of $5.00 is required of each student at the beginning of each semester to cover damage, breakage, loss, etc. These charges are received weekly from the different department heads of the College, and any balance due the student will be refunded.

A library fee of $1.00 is required of each student at the beginning of each semester.

A fee of $1.00 is charged for all courses having laboratory work with the exception of chemistry, for which a charge of $2.50 is made.

A fee of $4.50 is charged all students each semester who take typewriting.

A deposit of $1.00 is required of all students each semester desiring a steel locker in the Gymnasium; 50 cents of this amount is refunded providing the locker is in good condition at the end of the semester.

A fee of $2.50 is charged each student desiring to use the swimming pool. Towels are furnished the student.

A fee of $22.50 per semester is charged for indiviudal lessons in music. Class instruction is free.

Pianos for practice will be furnished five hours per week for $5.00 per semester.

BOARD AND ROOMS

Furnished rooms in the Woman's Building or in the Men's Dormitory (including heat, light, water, etc., two students occupying each room) are provdied at $5.00 per month each, payable in ad-

vance. Application for dormitory accommodations must be made in writing to the Registrar. Those occupying rooms in dormitories must furnish towels, bed linen and covers. The two dormitory buildings contain bathrooms and all necessary facilities, and are thoroughly sanitary, heated by steam and lighted by electricity.

Board in the College dining-hall is provided on the cafeteria plan at actual cost. The student pays for what he selects, and the cost per student varies according to the amount he eats. The cafeteria plan provides opportunity for a larger menu from which to choose, and in general is more satisfactory than the plan of having a set table and no choice.

Board with room in private families can be obtained for $6.00 to $7.00 per week. Furnished rooms, $4.00 to $6.00 per month, if two occupy the room.

APPROVED ROOMING HOUSES

Comfortable and desirable homes in Stillwater are listed as "approved rooming houses" for non-resident students by the Faculty Committee on Boarding and Rooming Houses. Students are not permitted to room in other than approved rooming houses.

OTHER EXPENSES

The total cost of attending the A. and M. College courses embraces the items of board, books, clothing and minor incidental expenses of a personal character. These may be safely estimated at $250.00 to $350.00 for nine months. Sixty-three percent of the students materially reduce their expenses below the figures given by working in the several departments of the A. and M. College and in the City of Stillwater, and many earn all personal expenses.

AMOUNT REQUIRED TO BEGIN

Those students of limited means desiring to enter the A. and M. College should have some $125.00 available with which to bear the first items of personal expense and make sure of some months consecutive study. This amount is estimated to include:

Board and room, three months	$ 100.00
Books, etc	12.00
Incidentals	15.00
Personal expenses	$ 127.00

Freshmen and Secondary School boys must supply themselves with gymnasium suits costing $4.00. Girls of the Secondary School, Freshman and Sophomore classes must supply themselves with gymnasium suits costing $6.00.

A senior division of the Reserve Officers Training Corps has been established under the rules of the War Department. This entitles Freshmen, Sophomores, Juniors and Seniors who take the course to receive from the Government $18.75 for uniforms.

In addition to the above, Juniors and Seniors who take the advanced course in military science will be paid at the rate of $12.00 per month by the Government for rations. It is expected these amounts will be increased.

DIPLOMA FEES

Each candidate for graduation in the four-year courses shall pay to the Registrar $4.00; candidates for graduation in the Business Course and in the Vocational Courses shall pay to the Registrar $1.50 before the student is recommended for graduation.

Before receiving a master or professional degree, the candidate shall pay to the Registrar a diploma fee of $10.00, and any unpaid laboratory fees.

ADVISERS TO STUDENTS

To bring about a closer relation between students and members of the Faculty and parents, and for the purpose of safeguarding every interest of the individual student, the A. and M. College has adopted an "advisory system" which applies to all students. A small number of students are assigned to each instructor, who is known as their adviser for the year, and whose duty it is to know each of them personally, and to meet them from time to time. The adviser endeavors to become familiar with the conditions surrounding his students. In many instances he selects studies suited to the student's need or adjusts the student to his work and surroundings. Parents should not hesitate to write to advisers or to the President concerning matters that may have to do with the student's comfort and progress in their studies.

CARE OF HEALTH

The health of all students is a matter of chief concern to the of-

ficers of the A. and M. College. The rules require that all cases of illness be reported promptly. A responsible physician is employed who attends all students without charge in cases of illness or injury received in the line of duty, except cases of surgery. Sickrooms for the better accommodation of boys and girls suffering from illness are provided, without additional cost, in each of the dormitory buildings.

All students have access to the separate gymnasiums for boys and girls. Games and sports are encouraged for their mental relief and the physical relaxation afforded. These exercises, taken indoors and in the open air, followed by baths, and with the privilege of consultation on matters of personal health, afford valuable safeguards to the health of every student who attends the A. and M. College. One of the finest and best gymnasiums in the country is now fully equipped for the use of all students. A large swimming pool in connection is available for women two days each week under the supervision of a competent instructor.

STUDENT HELP

Students are employed on the farm, in the creamery, dining-hall, the Printing Department and elsewhere. This, in connection with such opportunities as are offered in the city, has enabled a very considerable number of students practically to make their own way through their College courses. The amount a student can earn depends almost entirely upon his energy, and the time he can spare from his studies. The rate of pay is 30 cents per hour. Skilled labor commands a better rate of pay—some lines of expert work paying 50 cents an hour. It must not be inferred that the A. and M. College engages to afford employment sufficient to enable every worthy young man to complete the course without other resources. With the growth of the institution has come an increased demand for this employment which it is impossible to meet in full, yet very few students have been compelled to leave College in recent years on account of inability to secure work.

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GRADE POINT SYSTEM

No student is permitted to register for more than 16 hours or less than 12 hours in a semester of a regular College course for which a degree is granted, exclusive of military and physical train-

ing in the Freshman and Sophomore years, with the following exceptions: (*a*) The privilege to register for more than 16 hours is denied if in the previous semester any of the Grades E, F, or an avoidable I has been received, or less than 16 hours have been successfully completed; (in the case of an unavoidable grade I, arrangements for its removal, within a definite, reasonable time, must be made satisfactory to the student's adviser and Dean); (*b*) students free from the limitations of rule (*a*) may register for one extra hour above 16 hours for every 2 points earned in the previous semester in excess of 12 points for not more than 20 hours, and 1 extra hour above 20 hours for every 3 points earned in excess of 20 points; (*c*) requirements for advanced standing concerning credit hours and points, extra hours, and graduation, shall be determined by the Committee on Advanced Standing from grades and work presented in proportion to the time required to complete the course; (*d*) students earning less than 12 points in a semester may register the next semester on probation as follows: The maximum of 16 hours or the minimum of 12 hours may be taken on condition that upon each monthly report there are no grades E, F, or avoidable I; (*e*) students failing to meet the requirements of (*d*) must reduce the amount of their work as follows: For every point below 12 points earned in the previous semester, 1 hour reduction from the total of 16 hours, adjustment to be made by the student's adviser and Dean; (*f*) failure to carry 12 hours with no grades E, F, or avoidable I, shall render student subject to temporary suspension, upon the approval of the President.

AWARDING OF POINTS AND HONORS

Points shall be awarded, exclusive of military and physical training in the Freshman and Sophomore years, in accordance with the following:

Grades between 93 and 100, 3 points per credit hour.
Grades between 85 and 92, 2 points per credit hour.
Grades between 75 and 84, 1 point per credit hour.
Grades between 70 and 74, 0 points per credit hour.

HONORS

Class honors are awarded each semester to those students earning 35 points or more during that semester. They shall be desig-

nated Freshman, Sophomore, Junior or Senior, first or second semester honors.

First final honors for 85 points earned in the Freshman year.

Second final honors for 170 points earned in the first two years.

Third final honors for 255 points earned in the first three years.

Honors for 300 to 339 points earned at the end of the Senior year.

High honors for 340 or more points earned at the end of the Senior year.

The names of all students earning honors will be printed in a special bulletin to be designated "HONOR BULLETIN" at the beginning of each semester and at commencement time.

The Honor Bulletin for each year will be included in the Catalog of each year.

HONOR STUDENTS OF THE SENIOR CLASS 1919-20

Average Grade for Four Years

Agriculture	Dale Fetzer	86.4
Engineering	J. B. Kibler	85.4
Home Economics	Cora Kane	88.7
Education	Mrs. Lottie Stiles	91.
Commerce and Marketing	Homer Hirzel	89.3

GRADES AND REPORTS

The semester grade is the average of the daily grade and the grades made in tests, and in making up the final grade for the semester, the semester grade shall count two-thirds and the final examination grade one-third. Reports showing the grades and standing of students are sent to parents and guardians at the end of each semester. Attention is particularly directed to these reports; they are the best indication of the work and standing of the student.

Students receiving a condition in a subject must remove the condition before the end of the third week of the following semester.

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ATHLETICS

Athletics, both intercollegiate and intramural, are encouraged at A. & M. College. Splendid equipment and facilities for varsity sports, as well as for physical education which is required of all

students both men and women until they have reached junior standing in College, are furnished. Specialists in the coaching of the several branches of recognized college sports and in physical education are members of the college faculty and teaching staff. The New Gymnasium, erected in 1919 at the cost of $100,000 and without an equal in the state, is headquarters for athletics and physical education for men. A gymnasium used by young women and under the supervision of the director of physical education of women is located in the Woman's building.

Varsity squads in football, basketball, baseball, track, wrestling, tennis and gymnastics are under competent coaches. A & M College is a member of the Southwest Intercollegiate Athletic Conference. Teams representing the various universities and colleges in the Southwest Conference and teams representing Missouri Valley Conference institutions are opponents of A. & M. teams annually in the several sports.

State interscholastic meets in track and field sports and in basketball and tennis are held annually at A. and M. An ample athletic field includes a football gridiron, baseball diamond, tennis courts, a quarter-mile track and additional practice grounds. Three separate grandstand units on the athletic field provide a seating capacity for five thousand people.

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MILITARY DRILL

Military drill is given during the first two years of the College course for its physical effects, and as required by the Federal law establishing this and other similar colleges. The good results of this drill are quickly noticed in the improved health, carriage and deportment of those coming under its helpful influence. Young men, especially, need such training to give them the erect carriage and strong physique that marks the man of military training.

A commissioned officer of the United States Army is assigned to duty at the A. and M. College as professor of military science. Instruction in military science is provided for all male students, and infantry drill is given in the field movements and under arms. Arms, accouterments and ammunition are supplied by the Federal Government. The military discipline is mild but firm, and cultivates habits of puncuality, alertness and the sense of personal responsibility. Military training, such as taught in the A. and M.

College, is not for the purpose of training young men for an army career; it really is preparation for civil life. The discipline and courtesy which grow out of the relation of military men among themselves, and the lessons learned in keeping "fit to fight" are fine additions to the regular College study. A rifle club, organized by volunteers, is an interesting feature of military training.

The Federal measure establishing the Reserve Officers Training Corps provides free uniforms to all cadets taking three hours drill per week, and to those taking the advanced course of five hours per week, $12.00 per month, or $144.00 per year, in addition.

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SCHOLARSHIP LOAN FUND AND PRIZES

JEROME KATZ MEMORIAL

Jake Katz, a merchant of Stillwater, has founded five annual scholarships of $100.00 each for students in the four-year courses at Oklahoma A. and M. College, in memory of his deceased son, Albert Jerome Katz. These scholarships will be available in September, 1920, will be payable in nine monthly installments each, and will be awarded by the President to needy students.

ALUMNI CORPORATION LOAN FUND

The Alumni Corporation of the College has a loan fund available to junior and senior students. A special committee of the Alumni Corporation passes on applications for loans. A senior student is not permitted to be in debt to the loan fund for more than $100.00 at one time, and a junior student for more than $50.00 at one time. Loans are made only in cases of absolute necessity.

LAHOMA CLUB LOAN FUND

The Lahoma Club has a Loan Fund from which money is loaned worthy young women to help them continue their studies at the A. & M. College. Application for loans should be made to the Loan Fund Committee. Loans are to be paid back within two years at a small rate of interest.

AGRICULTURAL SCHOLARSHIPS

The Seventh State Legislature passed an act providing for two scholarships in practical agriculture at Oklahoma A. and M. Col-

lege, each of the value of $100.00 yearly for two years, to be awarded to boys in each of the seventy-seven counties of the State who make the first and second highest general averages in examinations to be conducted in each county under the supervision of the county superintendent, all papers to be sent to the College for grading. The act provides that these examinations shall be held annually, so that, beginning with the year 1920, it is made possible for 308 students to be receiving free education from the State each year.

OKLAHOMA BANKERS' SCHOLARSHIPS

The Oklahoma Bankers' Association has offered nine scholarships in the A. & M. College, valued at $200.00 each to be awarded to the highest scoring club boy and club girl in each banking district except in Group 1 where the scholarship in the A. & M. College will be awarded to the highest scoring boy or girl in that district. One will be awarded to the boy and one to the girl in each group, excepting group 1, qualified to recive it who scores the greater number of points in his or her contest work in any of the boy or girl demonstration clubs, as carried on by the Extension Division of the A. & M. College.

THE COOPERATIVE LIVESTOCK DEVELOPMENT ASSOCIATION SCHOLARSHIP

The Co-operative Livestock Development Association will offer to the girl who is a member of the Poultry and Pig Clubs, a $200.00 scholarship in the A. & M. College. This girl must make the highest total score in both of these clubs combined.

MONTGOMERY WARD AND COMPANY SCHOLARSHIP

Montgomery Ward and Company of Kansas City will offer to either the second, third, fourth, fifth, or sixth year canning club girl who makes the highest total score in canning club work, a scholarship in the A. & M. College, valued at $200.00.

PRIZES

State Oratorical.—First prize, $25.00, Bishop Clothing Company, Stillwater; second prize, $10.00, Smith's Studio, Stillwater.

Intercollegiate Debate.—First prize, $15.00, Peck Bros. and Miss

Nora Talbot; second prize, $10.00, Mr. M. J. Otey, Stillwater; third prize, $5.00, Dr. F. B. Olentine, Chicago.

Freshman Declamation.—First prize, $10.00, Katz Department Store, Stillwtaer; second prize, $5.00, Tiger Drug Store, Stillwater.

Freshman Extempore Speaking.—First prize, $10.00, First National Bank, Stillwater; second prize, $5.00, Stillwater Furniture Company, Stillwater.

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SOCIETIES AND PUBLICATIONS

General literary societies are always active among the students. The Philomathean and the Omega Literary Societies enroll a large percent of the entire student body, and, in addition, a number of clubs and societies have been formed by students specializing in science, engineering, education, agriculture, home economics, and commerce for the purpose of supplementary work and investigation. The Athletic Association has charge of all local College sports, the "Tug-o'-War" and the interest of the institution in the interscholastic and intercollegiate meets. The Women's Athletic Association is well organized among all the college women and is working towards nationalization. It operates on the point system for all work done in Athletics.

The Dramatic Club is open to students interested in dramatic arts, and presents annually two performances of modern plays. The Debating and Oratory Club is organized for the purpose of furthering interest in debating and oratory. The College participates in intercollegiate debates and oratorical contests.

The Student Senate is made up of representatives from the sophomore, junior and senior classes, elected during the spring semester each year. This is a student government body which acts in harmony with the college administration in making laws to govern student activities.

The College musical organizations are the Mixed Chorus, College Band, College Orchestra, Men's Glee Club and Women's Glee Club.

RELIGIOUS ORGANIZATIONS

A Young Men's Christian Association and a Young Women's Christian Association are actively engaged in the numerous and beneficial lines of work characteristic of these organizations among

students. These student organizations are not merely helpful to their membership, but exert a wholesome influence on the moral life of the A. & M. College.

Secretaries are maintained who devote their entire time to religious, social and philanthropic work.

Eight leading churches are represented in Stillwater, and the students are encouraged to attend and participate in their services. As a matter of fact, the Sunday Schools and the young people's societies of the several churches in Stillwater are sustained very largely by the students from the A. & M. College.

HONORARY FRATERNITIES

Seven honorary national fraternities, two of which were founded at A. & M., are now established at the Oklahoma A. & M. College.

Alpha Zeta (Honorary Agricultural) organized 1897 at Ohio State University to stimulate interest in agriculture. Scholarship and interest in agriculture prerequisite. Installed at A. & M., 1918.

Phi Kappa Phi (Honorary Scholastic) organized 1898 at the University of Maine to stimulate mental achievement, emphasize scholarship and foster the aims of education. Only one third of the graduating glass having highest average, eligible. Installed at A. & M. 1919.

Alpha Kappa Psi (Honorary Commerce) organized 1904 at New York University to stimulate interest in the study of commerce, marketing and economics. Installed at A. & M. 1920.

Omicron Nu (Honorary Home Economics) organized 1912 at Michigan Agricultural College to promote scholarship and research in the field of household economics. Only seniors averaging 87½ per cent and juniors averaging 90 per cent are eligible. Personality and interest in the field also considered. Installed at A. & M. 1919.

Pi Kappa Delta (Honorary Forensic) organized 1913 among central western colleges to promote interest in forensics. Participation in three winning debates determines eligibility. Installed at A. & M. 1916.

Kappa Kappa Psi (Honorary Music) organized 1919 at A. & M. as a musical fraternity to stimulate interest in band work. Scholastic standing, character and length of time of affiliation with college band determine eligibility.

Theta Alpha Phi (Honorary Dramatic) organized 1920 at A. &

M. as a national college dramatic fraternity. Candidate must take a leading part, two important parts or four minor parts in three college plays to be eligible.

PUBLICATIONS

Student publications include the Orange and Black, a weekly; Engineering News; and the Redskin, the college annual. The Alumni Association publishes the A. & M. Boomer a monthly magazine.

The College publications include bulletins and catalogs, special announcements of the various schools, and pamphlets and bulletins from the Extension Division and the Agricultural Experiment Station.

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REQUIREMENTS FOR ADMISSION

All persons who desire to enter any school of the College should make application to the Registrar as early as possible before the opening of the first or second semester. Those who desire to be admitted by certificate should make application as soon as possible after their graduation from the high school. To all applicants a blank will be furnished which they are expected to fill out and file with the Registrar in advance of entrance. Upon receipt of this certificate a permit to register will be sent the applicant by the Registrar in advance of his coming. This will greatly facilitate the work of entrance. The student will present this permit at the registration room, and will not be compelled to wait his turn to meet the Entrance Committee.

All graduates of high schools will be given entrance credit according to the standing of their respective schools as shown by the report of the State High School Inspector.

The 15 units required are distributed in the most advantageous way for admission to the various College courses in the Schools of Agriculture, Engineering, Home Economics, Science and Literature, Education, Commerce and Marketing and Veterinary Medicine, as indicated in the following table. One who offers 14 such units will also be admitted as a Freshman, but will be conditioned in 1 unit. Such deficiency must be made up by the end of the first year that the student is in attendance.

	Agriculture	Engineering	Home Economics	Science and Literature	Education	Commerce and Marketing	Veterinary Medicine	Department of Music
English	3	3	3	3	3	3	3	3
Algebra	1	1½	1	1½	1	1	1	1
Plane Geometry	1	1	1	1	1	1	1	1
Solid Geometry	....	½	....	....	....	....	....	....
*Science	1	1	1	1	1	1	1	1
**Foreign Language	....	1	....	1	....	....	....	....
Social Science, including History	1	...	1	....	1	1	1	1
Required	7	8	7	7½	7	7	7	7
***Electives	8	7	8	7½	8	8	8	8
Total	15	15	15	15	15	15	15	15

*Physics required in Agriculture, Engineering and Science and Literature courses.

**Modern language or Latin required in Science and Literature course.

****To make up the total of 15 units the applicant may use as electives any accredited work satisfactorily completed in an accredited high school. A unit is defined to be the work done in an accredited high school or academy in five recitation periods a week for one school year.*

Entrance requirement for agricultural engineering is the same as for engineering.

The course in the Secondary School of the A. and M. College, offered in connection with the College, gives every needed opportunity for students of the College to make up anything lacking in their preparation for entrance. All such entrance deficiencies must be made up by the end of the first year that the student is in attendance.

ADVANCED STANDING

Applicants from other institutions of approved standing who offer collegiate courses or professional courses in excess of the requirements for admission, will be assigned such advanced standing as may be determined by the Committee on Advanced Standing.

Before considering the claims of any applicant for advanced standing, the committee will require, in addition to the data specified above (Requirements for Admission), official certificate showing: (*a*) That the applicant has been honorably dismissed; (*b*) what admission requirements were satisfied by the applicant in the institution from which he comes (and for this purpose, in addition to the certificate, a catalog of date concurrent with his admission will be required); (*c*) the duration of his attendance; (*d*) the character of the laboratory work done in preparatory schools. (This can be satisfied by submitting the student's laboratory notebook.)

All claims for credit must be specified at the outset. Claims

not so specified will not be considered after the formal determination of credit, unless the work on which they are based was done after the previous claim was filed.

A. Collegiate Credit for College Work:

Students transferred from other colleges will be admitted to the same standing in this College, provided that (*a*) the admission requirements of the college from which the transfer is made are equivalent to those of the Oklahoma A. and M. College; (*b*) the courses taken are standard college courses equivalent to those offered by the Oklahoma A. and M. College; (*c*) the maximum amount of credit granted shall not exceed that obtainable during the same period of time at this College, i. e., 16 credits per semester; (*d*) if the bachelor's degree is sought, the total credit shall not exceed 96 semester hours, one year of resident work being the minimum requirement for a degree.

B. College Credit for Normal School Work:

Students who have completed work of college rank in State Normal Schools may receive college credit on the following conditions: (*a*) Students who have completed the equivalent of 15 standard entrance units before entering a State Normal School, and who have been graduated from a two years' professional course in such a school may be admitted to Junior Standing; (*b*) students who enter normal schools without completing the equivalent of the 15 standard units may receive advanced standing for that work only which remains after the entrance requirements of this College have been satisfied. In such cases the total amount of college credit shall not exceed 30 semester hours.

C. College Credit for Preparatory Work:

Students who have excess credits for admission to College may be allowed college credit on the following conditions: (*a*) The work on which college credit is sought must have been done, after graduation from a high school, in a postgraduate course extending over at least one semester; the credit allowed shall not be more than half the time given, i. e., one year of such work in high school shall not be credited as more than one-half year of College work; (*b*) credit so listed is provisional and is formally confirmed by the Registrar only in case the student maintains during the first semester of resident work an average grade of 75 or better.

D. Advanced standing may also be obtained by written ex-

amination, conducted in the usual manner, after the applicant has satisfied the head of the department concerned that he has had sufficient instruction in the subject. The grade shall be reported to the Registrar.

SPECIAL STUDENTS

Persons of mature age who do not possess all the requirements for admission and are not candidates for a degree will be permitted to enter any of the courses in the different schools upon giving satisfactory evidence to the Dean of that school that they are prepared to take advantageously the subjects which they desire. If they desire to take advanced subjects, such as are offered in the Junior and Senior years, they must show special preparation or special necessity for such courses. Persons applying for admission on the above basis are required to present a detailed statement of their preparatory work at the time of their admission.

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SECONDARY SCHOOL OF A. AND M. COLLEGE

NON-VOCATIONAL COURSE

Oklahoma A. & M. College has abolished the first two years of highschool training in the Secondary School. Students must have completed the first two years highschool work before they can be admitted to the Secondary School.

VOCATIONAL COURSES— AGRICULTURE, HOME ECONOMICS, TRADES

In order to be eligible to enter the Vocational courses, students should have completed a course of study equal to the eighth grade. Students should be not less than 16 years of age.

REQUIREMENTS FOR DEGREES

BACHELOR'S DEGREE

In all of the four-year courses of study leading to a degree, a student must earn 128 credits and 96 points, exclusive of any credits given for required military science and physical training, before being eligible for a degree. A credit is one hour of theoretical work carried for one semester, three hours laboratory work being equival-

lent to one credit. The number of points depend upon the grade. (See below.)

The minimum requirement for the bachelor's degree is one year of resident work, and this work should be that of the Senior year.

LEADING TO A MASTER'S DEGREE

Explanatory.—Graduate work is specialized in character. It should increase the capacity of individual thinking and develop the powers of research and scientific investigation. A mere time fulfillment and accumulation of credits will not be construed as entitling a candidate to a degree.

1. Conditions of Candidacy.—A graduate of any school of this College, or of another institution in which the requirements for bachelor's degree are equivalent, may become a candidate for the master's degree by making application on a blank provided for the purpose. (Blank outlines may be obtained from the office of the Registrar.)

2. Applications.—An application in outline form shall be submitted in triplicate, for approval not later than two weeks after the beginning of the semester, to the Committee on Graduate Courses, signed by the major professor and the Dean, showing the nature and amount of major and minor work in theory and practice hours and equivalent credit hours.

On reverse side of said outline the major and minor subjects must be given in detail, including all topics to be considered.

3. Amount of Work.—The minimum requirements shall be not less than thirty credits. In addition to this a thesis is required. It must be related to the major subjects and should embody some original research work under the supervision of the major professor. An outline of this thesis must be submitted for approval to the committee and to the Dean concerned at least four months preceding the date of graduation.

4. The thesis must be submitted for the approval of the major professor and the committee at least two weeks before graduation. Three typewritten copies in specified form must be deposited, one with the committee, one with the Dean and one with the College Librarian.

5. Residence and Prerequisites.—One year of resident work is required of every candidate (which is not less than two regular semesters or four summer sessions) except that graduates of this

College may be permitted in special cases to obtain fifteen credits at any other approved institution.

In special cases a student may assist by teaching, in the department of major or minor work, not more than four class hours or supervising not more than twelve hours of laboratory work throughout each semester and qualify for the degree.

6. Examinations.—In addition to regular departmental examinations, a final oral or written examination, or both, will be given under the supervision of the committee.

7. Degrees.—The degrees offered are of two kinds, viz., academic and professional. The academic degrees are Master of Science, as pertains to the schools concerned.

PROFESSIONAL DEGREES

A graduate of the School of Engineering who has been engaged in acceptable professional work for a period of not less than four years since graduation, who has been in responsible charge of such work for at least one year of this period; and shall present a satisfactory thesis, may be recommended to the Board of Regents for one of the following professional degrees: Mechanical Engineer (M. E.), Electrical Engineer (E. E.), Civil Engineer (C. E.), Architectural Engineer (A. E.).

An application for a professional degree, including a detailed statement of experience, must be filed with the Committee on Graduate Courses by the candidate at least one year before the granting of such degree. If this record is approved, the committee will turn same over to the head of the department under whom the work for the degree most properly falls. The head of this department will then confer with the applicant in regard to the thesis and will require monthly reports from him thereafter as to his progress. Two bound copies of the thesis must be filed not later than April 1 of the year in which he proposes to qualify for the degree.

THE SCHOOL OF AGRICULTURE

HENRY G. KNIGHT, *Dean*

COURSES OF INSTRUCTION

The following courses of study, designed to meet the requirements of students of the various classes, have been organized in the School of Agriculture.

DEGREE COURSES IN AGRICULTURE

These courses of study lead to the degree of Bachelor of Science (Agriculture). and offer scientific training in agricultural bacteriology, agricultural chemistry, agricultural economics, agricultural education, agricultural engineering, agricultural journalism, agronomy, animal husbandry, dairying, horticulture, entomology, poultry husbandry and veterinary science. In addition to these specified subjects relating to agriculture, they embrace general training in chemistry, botany, bacteriology, zoology, English and other branches which have an application in agriculture, and which are designed to give a broad, general education for the man who wishes to devote his time and talent to agricultural pursuits, investigations or teaching.

The field is so broad, however, that it is impossible for any stutend in four years to take advantage of all the lines of work offered. As will be seen in the curriculum of studies, the work in the Freshman and Sophomore years is very much the same for all students, giving a maximum of the necessary fundamental studies. The Junior and Senior years, however, give considerable liberty for selection and for elective studies in the particular branch of agricultural science in which the student may be interested.

TEACHER TRAINING IN AGRICULTURE

The Smith-Hughes Act passed by Congress providing funds for secondary vocational education offers unusual opportunities for teachers of vocational subjects. Already a demand for trained teachers is noted which, it seems, can not be met unless more students prepare themselves to teach these subjects. The course in Gen-

eral Agriculture for Teachers, given on another page, meets the requirements for teachers of Vocational Agriculture under the provisions of this Act.

To meet the present emergency, students who complete other courses in the School of Agriculture, and who present 13 hours of work in Education, of which at least 6 hours must be prescribed courses in agricultural education, will be eligible to teach in secondary schools of the State receiving Smith-Hughes support for vocational agriculture. (This is subject to change by the State Board of Vocational Education at its discresion.)

SECONDARY VOCATIONAL AGRICULTURE

This course is designed for young men from the farms of Oklahoma who have not had the time or the inclination to take a regular course in the high schools of the State, to be followed by a four-year course in scientific agriculture, yet who desire a training in the practical application of the science of agriculture.

The course herein offered is designed to lead students back to the farms of the State with the knowledge of the best practices and with a vision of the possibilities in their chosen vocation. With this end in view, the work is organized on a real practice and production basis as far as circumstances and conditions will permit. The course covers two years' work of nine months each.

The Legislature has provided two scholarships of $100.00 for each county, each to run two years, available for students taking this course. For information, write to the Registrar, or see your county agent.

SHORT COURSES IN AGRICULTURE

TWELVE WEEK'S COURSE IN AGRICULTURE

November 28, 1921 to February 25, 1922.

This course is designed for young men from the farms of Oklahoma who have not the time nor the inclination to take a regular course in the high schools of the State, to be followed by a four-year collegiate course in agriculture, or even the Secondary Vocational Agriculture course, yet who desire a training in the practical application of the science of agriculture to the business of farming. It provides a course that gives the student a maximum of the actual studies relating to farm and livestock work, and in ad-

dition gives as much of the general studies as may be most useful in training young men to become leaders in their chosen calling on the farms of the State, or as teachers of agricultural subjects in the rural schools of the State, if the essential preparatory studies have been taken before entering the course.

The course of study includes work in agricultural chemistry, agricultural economics, agricultural engineering, field crops, soils, animal husbandry (including stock-judging, and a study of the feeding and care of animals,) dairying, horticulture, farm management, poultry husbandry, animal diseases and entomology.

The outline of studies is such as will impart the greatest amount of directly useful knowledge that can be acquired in a brief length of time. The course of study includes three terms of four weeks each, or a total of twenty-four weeks, for two years.

For further details dsecribing this course, application should be made to the Dean of Agriculture, Stillwater, Oklahoma.

FARMERS COURSE IN AGRICULTURE

The Farmers Course in Agriculture is designed to meet the growing demand on the part of the busy farmer who is actually engaged in the work on his farm and who can not avail himself of a college course, yet desires the latest information on the various phases of work on his farm. The course will consist of addresses, demonstrations and exercises covering a period of one week, designed to give busy farmers the most useful instruction and practice in the various phases of field crop culture, stock-feeding and management, horticulture, dairying and kindred subjects in the shortest possible time and at a season when they can be away from home for a brief period.

The course will be held in August, 1921, and is given under direction of the Extension Division, assisted by the teaching Faculty and Experiment Station staff of the A. and M. College, and by other speakers and specialists. Programs may be had upon application to the Director of Extension, A. and M. College, Stillwater, Oklahoma.

SIX WEEKS' DAIRY COURSE

November 7 to December 17, 1921

The six weeks' dairy course is for the training of two classes of students who can not attend the regular agricultural course of four years, but who still want a specialized training,

1. In Dairy Production and Management of Dairy Cattle.
2. In Dairy Manufacturing.

The Dairy Production Course will include a study of breeds and breeding of cows. The feeding and management of cows and calves, and modern barn practice, record-keeping and advanced registry testing. The milking of cows and modern methods of handling and marketing milk is also included.

A large, new dairy barn, with modern equipment, and stocked with representative cows of several breeds, is available for thorough study of a dairy farm.

The course in Dairy Manufacturing includes complete instruction in Butter-making, Ice Cream-Making and the Pasteurization of Market Milk. Cottage Cheese-Making, Commercial Buttermilk-Making and modern tests for dairy products are included in the course.

A modern commercial creamery is operated throughout the year. This includes machinery and apparatus for manufacturing all dairy products by approved methods and appliances.

The course includes special lectures as well as textbook study on all subjects, laboratory tests, and daily practice work in the creamery.

Write for special circular to the Dean of Agriculture, A. and M. College, Stillwater, Oklahoma.

ONE WEEK'S SPECIAL DAIRY COURSE

December 26, 1921, to December 31, 1921

This course of one week is to provide an opportunity for ice cream-makers, butter-makers and market milkmen, milk inspectors and creamery managers to become familiar with technical principles and facts regarding the manufacture of ice cream, butter, cream and milk, as well as to become familiar with the usual tests and methods employed in the modern factory.

The entire equipment of the Dairy Department, and other departments of the College, are at the disposal of students in the special dairy courses.

For further information, write to the Dean of Agriculture, Oklahoma A. and M. College, Stillwater, Oklahoma.

REQUIREMENTS FOR ADMISSION

FOUR-YEAR COURSES IN AGRICULTURE

The requirements for admission to these courses are stated in terms of units in common with all other regular courses in the College. The term "unit" means the equivalent of five recitations a week for one year in one branch of study in the Secondary School. Fifteen units are required for admission, an allowance of 1 credit being made, however, where an applicant has completed 14 units of work in an accredited high school. The 15th unit may be made up from the Secondary School studies offered in the College.

Applicants for admission to all courses in the School of Agriculture, except agricultural engineering, will be required to present 3 units in English; 1 in social science, including history; 1 in physice; 2 in mathematics, which shall be made up of 1 unit in algebra and 1 in plane geometry, and 8 additional units shall be elective from vocational, science, or other subjects. Requirements for admission to the course in agricultural engineering is the same as for courses in the School of Engineering.

SECONDARY VOCATIONAL AGRICULTURE

Completion of the eighth grade of common schools is required for admission to the courses in Secondary Vocational Agriculture, with the exception that students who have not completed the common school work, who show ability to handle the work, and who are at least 16 years of age, may be granted special permission to pursue this course. Students who are entered as regular students, upon completion of the course, as outlined, may have the credits applied toward entrance to the A. and M. College.

SHORT COURSE IN AGRICULTURE AND SIX WEEKS COURSE IN DAIRYING

Students to be admitted to this course must be at least 16 years of age, and have a good, common school education. No entrance examinations are required.

FARMERS COURSE IN AGRICULTURE

Any one interested in farming, or better agriculture, is invited to attend this course. There are no examinations or entrance requirements.

ONE-WEEK SPECIAL DAIRY COURSE

This course is designed especially for those who are already in the dairy business who wish an opportunity to take a short, intensive course.

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DEGREE COURSES IN AGRICULTURE

The following outline of study represents the required and elective work in the several couses leading to the degree of Bachelor of Science. The courses are numbered, beginning with one hundred in the Freshman year; odd numbers, as 101, represent the first semester's work in the subject, and the even numbers, as 102, the second semester's work. Subjects of the Sophomore, Junior and Senior years are numbered accordingly, two hundred for Sophomore, three hundred for Junior, and four hundred for Senior work. One hour of laboratory period is equivalent to one-third of a classroom period in estimating the number of hours per week to be taken.

The total requirements for graduation are 128 credits, exclusive of any credits in physical education.

Before graduation, every student in agriculture must have had at least six months of actual farm experience satisfactory to the Dean of the school.

In the outline below, figures without parenthesis indicate hours of classwork, in parenthesis hours of laboratory work.

GENERAL COURSE

FRESHMAN YEAR

FIRST SEMESTER	Hours		Cr.
Eng. 101. College	3		3
Chem. 101, Inorganic	3	(3)	4
Agron. 101, Field Crops	2	(4)	3⅓
A. H. 101, Market Types	1	(4)	2⅓
Pub. Spk. 101, Essentials	2		2
Agri. Engr. 101, Farm Mechanics	1	(3)	2
Physical Education		(3)	
Military Science		(3)	1

SECOND SEMESTER	Hours		Cr.
Eng. 102. College	3		3
Chem. 102, Inorganic	3	(3)	4
Hort. 104, Vegetable Gardening	2	(2)	2⅔
Bot. 106, General	2	(4)	3⅓
Dairy 102, Elements of Dairying	2	(4)	3⅓
Shop 108, Farm Carpentry		(3)	1
Physical Education		(3)	
Military Science		(3)	1

SOPHOMORE YEAR

FIRST SEMESTER	Hours		Cr.
Chem. 207, Qualitative Analysis	3	(3)	2
Chem. 205, Organic	2	(3)	3
Hort 201, Fruit-Growing	2	(4)	3⅓
Zool. 207, General	2	(4)	3⅓
Bot. 201, General	2	(4)	3⅓
Shop 205. Agricultural Forging		(3)	1
Military Scince		(3)	1

SECOND SEMESTER	Hours		Cr.
Chem. 206. Quantitative Agricultural Chemistry	2	(6)	4
A. H. 202, Breeds of Livestock	2	(3)	3
Ento. 202, General	3	(2)	3⅔
Bact. 202. General	2	(4)	3⅓
Agron. 204. Soils	2	(3)	3
Military Science		(3)	1

AGRONOMY COURSE

JUNIOR YEAR

FIRST SEMESTER	Hours		Cr.
Agron. 303, Forage Crops	2	(4)	3⅓
Bot. 303, Genetics	3		3
Agri. Engr. 303, Farm Motors	2	(4)	3⅓
P. H. 305, Farm Poultry	2	(4)	3⅓
Electives			3

SECOND SEMESTER	Hours		Cr.
Agron. 302, Soil Fertility	3	(6)	5
Agron. 304, Farm Accounts	1	(2)	1⅔
Hort. 304. Plant Breeding	3		3
A. H. 306, Animal Nutrition	3		3
Electives			3⅓

SENIOR YEAR

	Hours		Cr.
Agron. 401, Farm Management	2	(4)	3⅓
Agron. 409, Advanced Crops or Agron. 405, Advanced Soils	2	(4)	3⅓
Agron. 407. Seminar	1		1
Electives			6

	Hours		Cr.
Agron. 404, Crop Improvement or Agron 424, Advanced Farm Management	1	(4)	2⅓
Agron. 408, Seminar	1		1
Agri. 402, College and Station Work	1		1
Electives			7

ANIMAL HUSBANDRY COURSE

JUNIOR YEAR

FIRST SEMESTER

	Hours		Cr.
Vet. Med. 309, Anatomy	2	(2)	2⅔
Botany 303, Genetics	3		3
A. H. 305, Type & Form, Livestock Judging	1	(4)	2⅓
Vet. Med. 315, Physiology	2	(2)	2⅔
Agron. 303, Forage Crops	2	(4)	3⅓
P. H. 305, Farm Poultry	2	(4)	3⅓

SECOND SEMESTER

	Hours		Cr.
A. H. 302, Livestock judging	1	(4)	2⅓
A. H. 306, Animal Nutrition	3		3
Vet. Med. 310, Animal Diseases	2	(2)	2⅔
Agron. 302, Soil Fertility	3	(6)	5
Electives			3

SENIOR YEAR

FIRST SEMESTER

	Hours		Cr.
A. H. 301, Livestock Record work	1	(2)	1⅔
A. H. 401, Livestock Selection	1	(6)	3
A. H. 409, Animal Breeding	3		3
A. H. 411, Seminar	1		1
Agron. 401, Farm Management	2	(4)	3⅓

SECOND SEMESTER

	Hours		Cr.
A. H. 404, Beef Production	2	(2)	2⅔
A. H. 412, Seminar	1		1
A. H. 408, Horse Production	2	(2)	2⅔
A. H. 410, Sheep Production	2	(2)	2⅔
A. H. 414, Swine Production	2	(2)	2⅔
Agri. 402, College and Station Work	1		1

DAIRYING COURSE

JUNIOR YEAR

FIRST SEMESTER

	Hours		Cr.
Dairy 303, Testing Milk and Its Products	1	(6)	3
Agri. Engr. 303, Farm Motors	2	(4)	3⅓
Agron. 303, Forage Crops	2	(4)	3⅓
P. H. 305, Farm Poultry	2	(4)	3⅓
Elective			3

SECOND SEMESTER

	Hours		Cr.
Dairy 304, Factory Operation	2	(8)	4⅔
Dairy 306, Dairy Cattle Judging and Management	2	(4)	3⅓
A. H. 306, Animal Nutrition	3		3
Electives			5

SENIOR YEAR

FIRST SEMESTER

	Hours		Cr.
Dairy 405, Cheesemaking	1	(6)	3
Dairy 407, Milk Production	2	(4)	3⅓
Dairy 411, Seminar	1		1
A. H. 409, Animal Breeding	3		3
Bact. 311, Dairy Bacteriology	2	(4)	3⅓
Electives			2⅓

SECOND SEMESTER

	Hours		Cr.
Dairy 404, Market Milk and Dairy Inspection	2	(4)	3⅓
Dairy 412, Dairy Seminar	1		1
Agri. 402, College and Station Work	1		1
Electives			3⅔

HORTICULTURE COURSE

JUNIOR YEAR

FIRST SEMESTER

	Hours		Cr.
Hort. 301, Systematic Pomology	2	(4)	3⅓
Hort. 305, Canning and Handling By-Products	1	(2)	1⅔
Bot. 303, Genetics	3		3
P. H. 305, Farm Poultry	2	(4)	3⅓
Elective			3⅓

SECOND SEMESTER

	Hours		Cr.
Hort. 304, Plant Breeding	3		3
Bot. 304, Plant Physiology	2	(2)	2⅔
Agron. 302, Soil Fertility	3	(6)	5
Electives			5

SENIOR YEAR

FIRST SEMESTER

	Hours		Cr.
Hort. 401, Commercial Pomology	2	(2)	2⅔
Hort. 405, Forestry	2		2
Hort. 409, Thesis		(3)	1
Bot. 335, Pathology	2	(4)	3⅓
Elective			5

SECOND SEMESTER

	Hours		Cr.
Hort. 402, Landscape Gardening	2	(2)	2⅔
Hort. 404, History and Literature of Horticulture or			
Hort. 406, Forestry	3	(2)	3⅓
Hort. 410, Thesis		(3)	1
Agri. 402, College and Station Work	1		1
Electives			4

POULTRY COURSE

JUNIOR YEAR

	Hours		Cr.
Agron. 303, Forage Crops	2	(4)	3⅓
Bot. 303, Genetics	3		3
P. H. 305, Farm Poultry	2	(4)	3⅓
P. H. 309, Judging	1	(4)	2⅓
Electives			4

	Hours		Cr.
A. H. 306, Animal Nutrition	3		3
Agron. 302, Soil Fertility	3	(6)	5
P. H. 308, Incubation and Brooding	1	(6)	3
Electives			5

SENIOR YEAR

FIRST SEMESTER	Hours		Cr.
Agron. 401. Farm Management	2	(4)	3⅓
Dairy 407, Milk Production	3		3
P. H. 401, Seminar	1		1
P. H. 403, Research	1	(4)	2⅓
Electives			6⅓

SECOND SEMESTER	Hours		Cr.
Agri. 402, College and Station Work	1		1
P. H. 404, Research	1	(4)	2⅓
P. H. 402, Seminar	1		1
P. H. 406, Management	2		2
Electives			3

*COURSE IN GENERAL AGRICULTURE FOR TEACHERS

JUNIOR YEAR

FIRST SEMESTER	Hours		Cr.
Agron. 303, Forage Crops	2	(4)	3⅓
Agr. Eng. 303 Farm Motors	2	(4)	3⅓
P. H. 305, Farm Poultry	2	(4)	3⅓
Bot 303, Genetics	3		3
Edu. 203, Psychology	3		3
Electives			1

SECOND SEMESTER	Hours		Cr.
A. H. 302, Livestock Judging	1	(4)	2⅓
A. H. 306, Animal Nutrition	3		3
Vet. Med. 310, Animal Diseases	2	(2)	2⅔
Agron. 302, Soil Fertility	3	(6)	5
Edu. 316, Methods of Teaching in the High School	3		3

SENIOR YEAR

FIRST SEMESTER	Hours		Cr.
Agron. 401, Farm Management	2	(4)	3⅓
Bot. 305, Plant Pathology	2	(4)	3⅓
Agri. Edu. 403	3	(3)	4
Agri. Edu. 421, Practice Teaching		(4)	1⅓
Electives			4

SECOND SEMESTER	Hours		Cr.
Econ. 414, Rural Economics	2		2
Educ. 422, Rural Sociology	2		2
Agr. 402, College and Station Work	1		1
Agri. Edu 422, Practice Teaching.		(4)	1⅓
Electives			3⅔

*Students completing this course are qualified to teach agriculture in the high schools of the State receiving Smith-Hughes support.

FOUR YEARS' COURSE IN AGRICULTURAL ENGINEERING

The requirements for admission for this course are the same as the requirements for admission to courses in the School of Engineering, but in addition; before a student is permitted to register for this course, he must present satisfactory credentials showing that he has performed at least 1,000 hours of farm work. Before he will be granted his degree, the student must present satisfactory credentials showing the performance of at least 400 hours work in a trade, such as carpentry, masonry, foundry, forge or machine-shop, preferably at the beginning of the Sophomore year. Likewise must credentials be secured showing at least 200 hours as tractor or steam engine operator; or, failing in this, 300 hours actual service with a threshing crew, preferably at the beginning of the Junior year. One month in the department's field engineering camp will be required either at the beginning or end of the Senior year.

AGRICULTURAL ENGINEERING COURSE

FRESHMAN YEAR*

FIRST SEMESTER	Hours		Cr.
Eng. 101, College	3		3
Chem. 101, Inorganic	3	(3)	4
Math. 105, College Algebra	4		4
Agron. 101, Field Crops	2	(4)	3⅓
Shop 101, Woodwork		(4)	1⅓
Physical Education		(3)	
Military Science		(3)	1

SECOND SEMESTER	Hours		Cr.
Eng. 102, College	3		3
Chem. 102, Inorganic	3	(3)	4
Math. 108, Plane Trigonometry	3		3
Pub. Spk. 101, Essentials	2		2
A. H. 202, Breeds of Livestock	2	(3)	3
R. E. 103, Implement Drafting		(6)	2
Physical Education		(3)	
Military Science		(3)	1

SOPHOMORE YEAR

FIRST SEMESTER	Hours		Cr.	SECOND SEMESTER	Hours		Cr.
Math. 207, Analytics and Calculus,	5		5	Math. 208, Calculus	5		5
Physics 201, Engineering	4	(3)	5	Physics 202, Engineering	4	(3)	5
Agron. 303, Forage Crops	2	(4)	3⅓	M. E. 204, Kinematics	2	(6)	4
C. E. 201, Surveying		(3)	1	Agron. 204, Soils	2	(3)	3
Chem. 207, Qualitative Analysis	1	(3)	2	Military Science		(3)	1
Military Science		(3)	1				

*Freshman and Sophomore work only will be offered in 1921-22. Other courses are indicated to give a general idea of the course.

JUNIOR YEAR

FIRST SEMESTER	Hours		Cr.	SECOND SEMESTER	Hours		Cr.
C. E. 301, Applied Mechanics	3		3	C. E. 302, Mechanics of Materials	3		3
Shop 301, Machine-shop		(4)	1⅓	Chem. 206, Quantitative Agricultural Chemistry	2	(6)	4
C. E. 307, Topographical Drawing		(3)	1	C. E. 312, Hydraulics	2	(2)	2⅔
Seeding Machine Design			1	M. E. 306, Thermodynamics	3		3
M. E. 301, Materials of Machines	2		2	M. E. 308, Mechanical Laboratory.		(3)	1
M. E. 307, Mechanical Laboratory		(3)	1	Shop 302, Machine-shop		(4)	1⅓
Harvester Design			1⅔	Agron. 304, Farm Accounts	1	(2)	1⅔
Shop 205, Agricultural Forging	3		1				
Terracing			1				
Hort. 405, Forestry	2		2				
Dairy Machinery			1				

SENIOR YEAR

FIRST SEMESTER	Hours		Cr.	SECOND SEMESTER	Hours		Cr.
Bact. 202, General	2	(4)	3⅓	R. E. 304. Farm Structures	1	(2)	1⅔
C. E. 303, Roads and Pavements	3		3	Automotive Machines			1
C. E. 413, Irrigation	2		2	E. E. 414, Alternating Current Machines	3	(3)	4
Agron. 401, Farm Management	2	(4)	3⅓	Hort. 402, Landscape Gardening	2	(2)	2⅔
Sewage Disposal			1⅓	R. E. 409, Power-Driven Machines			2
				Engine Design			3

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DEPARTMENT OF AGRONOMY

M. A. BEESON, *Professor*
ADRIAN DAANE, *Assistant Professor*
GLEN BRIGGS, *Assistant Professor and Research Assistant*
H. F. MURPHY, *Instructor*
R. C. MORGAN, *Instructor in Secondary Vocational Agronomy*
H. D. SHIFLITT, *Instructor in Secondary Vocational Agronomy*

The course in agronomy has been designed to familiarize the student with the principles underlying soils, crop production, farm management, and farm economics. It offers practical training in these modern fields of science, aiding students to solve the problems of farm life, and fitting them for educational and research work.

The subject matter of these courses comprises the most recent information and experimental data. While the conditions in different sections of Oklahoma are given special consideration, yet the instruction is not intended to be limited geographically.

The courses of instruction in this department are coordinated with the courses in animal husbandry, dairy husbandry, agricultural engineering, poultry husbandry, horticulture, entomology, and agricultural education. By this arrangement, and the electives allowed, the student will be able to get a comprehensive knowledge of the

three large branches of agricultural science—the soil, the plant and the animal. And, too, the student has an opportunity to secure a more general education in Agriculture fitting him for general farming and extension work, or he may specialize in any particular division of the Agronomy Department, as soils, crops and farm management.

The work in the department is two-fold: First, to fit young men to successfully solve problems of soils, crops and farm management, which are an integral part of every farmer's experience; second, to fit students to creditably fill positions in Agricultural Colleges, Eperiment Stations, and high schools, and as farm managers, and extension workers.

The Station farm used by the Department of Agronomy consists of 160 acres of medium rolling land, well situated for experimental and demonstration work. It is well equipped with all kinds of farm machinery necessary in crop production.

The general field and experimental plats of the Experiment Station used for improving and testing farm crops and for conducting experiments in methods of soil management, afford the student excellent opportunities for study and investigation.

The large, well-equipped laboratory for soil physics and soil fertility work is maintanied for the regular use of students.

A research laboratory is well supplied with necessary apparatus for the use of the instructors and advanced students in doing research work.

The crops laboratory is well equipped with material and specimens for a detailed study of the different cereal, forage and fiber crops.

The courses in farm management and farm economics are designed to correlate the information obtained in other courses so that the student may understand the principles involved in organizing and conducting a farm as a profitable business. Records of 1,000 Oklahoma farms are available for use in the farm management course.

SUBJECTS

101 FIELD CROPS. Class 2 hours, laboratory 4 hours. Credit 3⅓.

A study of the characteristics, adaptation, preparation of the seedbed, culture and uses of the various cereal crops, and varieties of cotton adapted to Oklahoma conditions. The laboratory work is devoted largely to a study of the various cereal grains and cotton, and crop judging.

Text: "Field Crops for the Cotton Belt", Morgan.
Required of all agricultural students.

204 SOILS. Class 2 hours, laboratory 3 hours. Credit 3.

A general introductory course dealing with the origin, formation, classification and physical properties of soils. Particular emphasis is placed upon the effect of soil management on moisture, drainage, aeration, heat, erosion and alkali.

Text: "Soils", Lyon, Fippin and Buckman.
Prerequisite: Elementary Physics.
Required of all agricultural students.

302 SOIL FERTILITY. Class 3 hours, laboratory 6 hours. Credit 5.

The relation of the plant to the soil. Influence of the plant on the natural fertility of the soil. Profitable methods of conserving fertility. Effect of different systems of farming upon the fertility and productiveness of soils. Relation of micro-organisms to fertility. Special emphasis is given to fertilizer requirements of Oklahoma soils.

Text: "Soil Fertility and Permanent Agriculture," Hopkins.
Prerequisite: Chem. 206; Agron. 204.
Required of all agricultural students.

303 FORAGE CROPS. Class 2 hours, laboratory 4 hours. Credit 3⅓.

A study of the history, development, growth, distribution, culture and uses of the forage crops. Annual and perennial grasses and forage crops, including legumes, cereals and sorghums, are studied with special reference to their culture, adaptation, production and uses. In the laboratory a study is made of the plant and the varieties of different seeds, with special reference to their identification, quality and purity.

Text: "Forage Crops", Piper.
Prerequisite: Agron. 101.
Required of all agricultural students.

304 FARM ACCOUNTS. Class 1 hour, laboratory 2 hours. Credit 1⅔.

Farm inventories, stock and crop accounts; complete farm accounts. Special emphasis is given to the interpretation of the accounts and their application to the organization and management of the farm.

Required of all agronomy students.
Elective for all students.

305 COTTON PRODUCTION, GRADING AND CLASSING. Class 1 hour, laboratory 4 hours. Credit 2⅓.

Varieties, breeding, harvesting and marketing of the cotton crop and cottonseed products will be considered in detail. The laboratory work consists of testing fibers and grading and classing, together with field work.

401 FARM MANAGEMENT AND ECONOMICS. Class 2 hours, laboratory 4 hours. Credit 3⅓.

The purpose of this course is to assemble and correlate the principles involved in the successful management of a farm. Study is made of points to be considered in the selection of the farm, types of farming, planning and arrangement of the farmstead, the fields and crop rotations, the relation of the size of the farm to profits; the relation of livestock to crop production; permanent agriculture; distribution, labor and finance, receive consideration.

Text: "Agricultural Economics", Taylor.
Prerequisite: Agron. 302, and 303.
Required of all agricultural students.

404 CROP IMPROVEMENT. Class 1 hour, laboratory 4 hours. Credit 2⅓.

This is an advanced course in cereal and forage crops dealing with factors affecting management, improvement and breeding. The laboratory is partly devoted to the collection, reading and classification of material concerning cereal and forage crop improvement. When conditions permit, the laboratory work consists chiefly of actual work on the principal crops that are being improved on the Station farm.

Prerequisits: Agron. 302, 303 and Hort. 304.

Either Agron. 404 or Agron. 424, required of agronomy students.

405 ADVANCED SOILS. Class 2 hours, laboratory 4 hours. Credit 3⅓.

Physical or chemical study of special soils in which the student is specially interested. Centrifugal analysis, time and depth of cultivation, moisture and temperature, surface washing and prevention, determination of limiting elements of plant food on the home farm, effect of various fertilizers, as determined by pot and field experiments. Study of fertility experiments at other Stations.

Prerequisite: Agron. 302 and 303.

Agron. 409 or Agron. 405 required of agronomy students.

407 SEMINAR. Class 1 hour. Credit 1.

Reports, discussions and papers will be called for on literature and scientific research along agronomic lines.

Prerequisite: Agron 302 and 303.

Required of all agronomy students.

408 SEMINAR. Class 1 hour. Credit 1.

Continuation of Agronomy 407.

Prerequisite: Agron 302 and 303.

Required of all agronomy students.

409 ADVANCED CROPS. Class 2 hours, laobratory 4 hours. Credit 3⅓.

This course takes up more advanced work in the production of the important crops throughout the United States. Emphasis will also be placed on more detailed study of the various plants that go to make up the cereal and forage crops of the United States.

Prerequisite: Agron 302 and 303.

Either Agron. 409 or Agron. 405 required of agronomy students.

423 COMMERCIAL GRADES AND DISTRIBUTION OF FARM PRODUCTS. Class 1 hour, laboratory 4 hours. Credit 2⅓.

Study is made of the methods of inspecting, grading, storing and distribution of farm Products. In the laboratory a study is made of the commercial grades of corn, wheat, oats and other farm products.

424 ADVANCED FARM MANAGEMENT. Class 1 hour, laboratory 4 hours. Credit 2⅓.

Further study of organization and field management, and a study of farms over the State, noting the arrangement of fields, and obtaining data on the farm, including labor, income and cost of production.

Prerequisite: Agron. 401.

Either Agron. 424 or Agron. 404 required of agronomy students.

DEPARTMENT OF ANIMAL HUSBANDRY

W. L. BLIZZARD, *Professor*
CARL P. THOMPSON, *Associate Professor*
A. E. DARLOW, *Instructor*
FRED J. BEARD, *Instructor in Secondary Vocational Animal Husbandry*
ALEX LAVIN, *Herdsman*
E. R. JONES, *Herdsman*
FRANK BAYLISS, *Herdsman*
FELIX ROY, *Herdsman*
C. CARPENTER, *Herdsman*
A. C. BASTION, *Farm Foreman*

The Department of Aninmal Husbandry gives instruction in all lines of practical and theoretical work which deal with judging, selecting, breeding, feeding, development, care and management of the various market and breed types of farm animals. The livestock industry in Oklahoma is the most important industry in the State, and for this reason the department is attempting to supply adequate instruction to meet the demands for work of this character.

EQUIPMENT

The equipment in the form of flocks and herds, barns and outbuildings, land and lots is rather complete. These make up the laboratories for this department. That the herds and flocks contain animals of unusual merit is shown by recent winnings at the best livestock shows in the country. A steady improvement in the livestock is being made.

The books in the libraries of the College, Experiment Station and department assist the students greatly in securing authentic information about livestock affairs. The department receives regularly copies of all the prominent livestock papers and periodicals. Special effort has been made to secure a complete list of herdbooks and animal husbandry reference literature. The material at hand enables students to become specialists in many lines of the animal industry.

COURSES

Judging and selection is one of the main factors of the livestock work. The instruction is given with the idea that a great deal of good practice makes a proficient judge. Much time is given to work with the animals at the barns and in the judging pavilion. The score card method is used at first. In this way every point that affects the value of the animal is discussed in detail. Different breeds and types have different score cards, and by the use of all these cards students become proficient in the use of the score card.

The comparative system consists in placing a class of animals in order of merit. Three or four or more animals are used as a class. Fifty percent is given to perfect placing and 50% for correct reasons for placing. The Senior and postgraduate students are trained in judging so that they may, upon completing the course, assist in judging at the various county and state fairs.

Breeding, feeding and management are important courses of the instruction. Several breeding experiments are in progress at the Experiment Station. Students work out the details of the experiments and thereby become acquainted with the fundamental principles governing this science. Senior students are required to spend four hours each week throughout the year in feeding the hundreds of head of livestock at the College. The feeding work is carefully supervised by the best trained instructors and herdsmen.

Livestock management is one of the principal courses on the schedule. Students are taught that good management is more necessary than theories and fancies.

The main aim of the work given the student is to train him to fill some of the fields in which there is a great demand. A combination of college training and practical experience works well in making the best men. Colleges and experiment stations, Government agencies, farmers, merchants and all commercial agencies that buy and sell the farmer's produce, need men trained as this College is doing.

BEEF CATTLE

The beef cattle section of the Animal Husbandry Department is represented by three breeds, the Hereford, Shorthorn and Angus. Good representatives of each breed are maintained, and the course of study is so arranged as to give the student practical instruction in selection, feeding, breeding, marketing, care and management. In addition to the breeding herd, the College maintains a steer herd. It is maintained because it is much easier to keep steers in high condition throughout the year, as there is a tendency to make nonbreeders of breeding cattle by keeping them in the high condition required for the best instruction work. The recent winnings of the cattle show that the present equipment is exceedingly good.

DAIRY CATTLE

The livestock equipment in the dairy section consists of registered Jerseys and Holstein-Friesians of high quality. Some of them pro-

duced as much milk and butterfat as any in the State. Daily records of about forty pounds of milk and two pounds of butterfat for about six months are common among the animals of the Rose Fern Lad Jersey family. Yearly records are kept in every case. It is planned to have one other breed well representd in the College herd before another year has passed. There has been a larger increase in value per head of dairy cattle in Oklahoma during the past year than any other class of livestock. More attention will be given to selecting and producing dairy cattle. Numerous lots and pasture land of several hundred acres is used in the outdoor management of the herd.

HORSES

The horse section of the Animal Husbandry Department is represented by two breeds. Among these are good representatives of the Percherons and Standard-breds. In the collection of Percheron mares some excellent specimens are found. The Standard-breds are also represented by good individuals. This collection of horses was established some time ago, and with the individuals that have been added to it gives the student an excellent opportunity to receive some real practical work with horses.

SHEEP

The equipment for sheep consists of a barn and two silos, valued at $2,500.00, besides several moderate-sized pasture fields. The breeding flocks total about one hundred select individuals. All sheep are owned by the Experiment Station, and are used in the cross-breeding experiment that was started in 1909. Purebred flocks of Shropshires, Dorsets, American Merinos and Rambouillets are maintained and afford excellent material for instruction in the types and breeds of sheep in connection with the work in practical sheep-judging. Thorough courses are offered in the study of market types and breed types of sheep, together with special sheep selection, production and management.

SWINE

The collection of swine outnumbers that of any other section of the Animal Husbandry Department. Several breeds are represented. There are more Duroc Jerseys than any other breed. A number of Poland Chinas, Berkshires and Hampshires are kept. About fifty grade hogs are used, mainly for experimental purposes. In all, the number of swine on hand ranges from 175 to 200.

SUBJECTS

101 MARKET TYPES OF LIVESTOCK. Class 1 hour, practice in judging 4 hours. Credit 2⅓.

This course consists of a study of the market types, classes and grades of horses, cattle, sheep and swine.

Text: "Types and Market Classes of Livestock", Vaughn.

202 BREEDS OF LIVESTOCK. Class 2 hours, practice 3 hours. Credit 3.

Characteristics of each breed of horses, cattle, sheep. swine and jacks are considered at length. Each breed is discussed with reference to its origin, history, development and adaptation to American conditions. Much emphasis is put on the practical work in judging representatives of the various breeds according to the standards set by the show ring.

Text: "Types and Breeds of Farm Animals", Plumb.

301 LIVESTOCK RECORD WORK. Class 1 hour, laobratory 2 hours. Credit 1⅔.

A study of the systems of livestock registration, the use of herd books, the tracing of pedigrees, and the leading blood lines of horses, cattle, sheep and swine.

Prerequisite: A. H. 101, 202.

Text: Herd Record Books.

302 LIVESTOCK JUDGING. Class 1 hour, practice in judging 4 hours. Credit 2⅓.

A practical course aimed to train the student to become proficient in livestock judging. The first part of the work consists of the use of the score card as applied to the different types and breeds. The major portion of the work is done by the method of comparative judging, using rings of from three to five animals.

Prerequisite: A. H. 101, 202.

Text: "Judging Farm Animals", Plumb.

305 TYPES AND FORM IN JUDGING LIVESTOCK. First Semester, Junior Year. Lecture 1 hour. Laboratory 4 hours. Credits 2⅓.

Prerequisit: A. H. 101, 202.

Detailed and specific study is made of animal form and type and the influence of this upon growth and development. All classes of livestock are studied in this course with special reference to their growth and development.

Text: Judging Livestock. John A. Craig.

306 ANIMAL NUTRITION. Class 3 hours. Credit 3.

Principles of animal nutrition; composition and digestibility of various feeds; balanced rations; economical feeding of animals for various purposes.

Text: "Feeds and Feeding", Henry and Morrison.

401 LIVESTOCK SELECTION. Class 1 hour, practice in judging 6 hours. Credit 3.

This course deals with the judging of market classes as well as the different breeds of purebred stock. During the work of the semester, occasional trips are made to the best livestock farms of the State, where the students have an opportunity to judge and to observe the management of herds and flocks. Students are urged to attend county and state fairs to observe the judging of livestock.

Prerequisite: A. H. 101, 202, 302.

Required of students who are candidates for judging teams.

Text: Assigned references.

404 BEEF PRODUCTION. Second semester, Senior year. Class work, 2 hours. Laboratory 2 hours. Credits 2⅔ hours.

Prerequisite: A. H. 101, 202 and 306.

This course includes a study of method of growing and producing market cattle, also the feeding, care and management and marketing of pue bred cattle. The laboratory includes practical work in feeding, management and care of cattle.

Text: Beef Production, Mumford.

414 SWINE PRODUCTION. Second Semester, Senior year. Class work, 2 hours. Laboratory 2 hours. Credit 2⅔ hours.

Prerequisite: A. H. 101, 202, 306.

This course takes up a study of economic methods of feeding swine for breeding purposes as well as for market. Laboratory work includes actual practice in feeding, management and care of swine.

Text: Pork Production, W. W. Smith.

410 SHEEP PRODUCTION. Second Semester, Senior Year. Class work 2 hours, Laboratory 2 hours. Credit 2⅔ hours.

Prerequisite: A. H. 101, 202, 306.

Systematic study is made of the methods of growing, fitting and finishing sheep for market. The pure bred methods are also discussed in this course.

Text: Productive Sheep Husbandry by Coffey.

408 HORSE PRODUCTION. Second Semester, Senior Year. Class work 2 hours. Laboratory 2 hours. Credit 2⅔ hours.

Prerequisite: A. H. 101, 202, 306.

Tthis course includes a study of the best methods of growing and marketing, care of horses, for work, for market; also pure bred horses. Laboratory work includes practical work in feeding, handling and general care of pure bred horses.

Text: Productive Horse Husbandry, Gay.

ELECTIVE COURSES

421 ADVANCED PEDIGREES. Laborartory 4 hours. Credit 1⅓ hours.

Pedigrees are traced five generations. Tabulation and study is also made of their show year record in this course. The families are given special stress in this work.

422 MARKETING LIVESTOCK. Class work, 2 hours. Credit 2 hours.

In this course of study is made of marketing livestock and livestock products. The problems of the shipper, producer, problems of freight, insurance, charges, commissions, effects of grain and other feeds on the value of livestock are also discussed.

424 PRODUCING AND MARKETING WOOL. Class work, 2 hours, Credit 2 hours.

This course includes a study of the supply of wool and the market for the same. Methods of producing, marketing, storing and grading and by-products are taken up in this course.

FOR GRADUATES:

501-2 RESEARCH IN ANIMAL HUSBANDRY.

Amount of work six to sixteen semester credits.

Students are assigned special problems for investigation.

DEPARTMENT OF DAIRYING

A. C. BAER, *Professor*
A. D. BURKE, *Assistant Professor*
H. E. DOTY, *Instructor and Foreman of Factory*
L. F. FRAZIER, *Assistant in Cow-Testnig*
J. D. POLLARD, *In Charge of Office*

The dairy industry in Oklahoma is firmly established, and much progress has been made in getting more and better cows. Breeders of dairy cattle are steadily improving their herds. Manufacturers of dairy products are installing modern machinery and building better factories.

New dairy legislation has resulted in improving conditions of production and marketing milk and cream.

Students and graduates will have unusually good opportunities in dairying for many years. The breeding of dairy cattle will offer unlimited advantages, and many graduates will engage in dairy farming. The market milk industry as well as the ice cream and creamery industry will demand technically trained men.

The courses in dairying are planned to give students a general knowledge of the subjects as well as specialized technical training in the management of dairy herds and milk production, special training and experience in butter-making, ice cream-making, cheese-making, the handling of market milk and various by-products.

The facilities for instruction include a new, modern dairy barn, completely equipped and stocked with high-class dairy cattle of several breeds, as well as a large milking herd.

The Creamery Building is equipped with modern, sanitary machinery and apparatus for manufacturing butter, ice cream, cottage cheese and buttermilk on a commercial scale. Market milk equipment for bottling milk and pasteurizing milk in the bottle is in daily use to supply the city of Stillwater with dairy products. A retail milk delivery wagon covers the entire city daily.

The farm dairy-room and laboratories are well equipped for the teaching of students in all courses.

The activities of the department include the teaching of students in the regular and short courses, the commercial operation of the creamery and market milk departments for experimental and reserach work, as well as for practical teaching, and the operation of a dairy farm for the breeding of dairy cattle and for the production of milk. The department also has charge of official advanced registry and register of merit testing of purebred cows for breeders of the State. Students taking the dairy course have an opportunity to

secure experience and instruction in all the activities of the department.

SUBJECTS

102 ELEMENTS OF DAIRYING. Class 2 hours, laboratory 4 hours. Credit 3⅓.

(One hour lecture and one hour recitation).

A general survey of the field of dairying, including a study of the secretion of milk, the Babcock test, farm butter-making, farm separators, production of sanitary milk, cow test associations, and advanced registry testing.

Text: "Manual of Milk Products", Stocking.

303 TESTING MILK AND ITS PRODUCTS. Class 1 hour, laobratory 6 hours. Credit 3.

A thorough study in the use of the Babcock test. Includes testing of milk and cream for butterfat, calibrating of glassware and testing skimmilk, buttermilk, cheese, condensed milk and ice cream for butterfat. The lactometer and its application to the detection of adulteration, different methods of testing for acidity, fermentation tests, detection of oleomargarine, renovated butter. Tests for preservatives in different dairy products are also included.

Text: "Testing Milk and Its Products", Farrington and Woll.

304 FACTORY OPERATION. Class 2 hours, laobratory 8 hours. Credit 4⅔.

A study of modern methods of butter-making, ice cream-making, cottage cheese, including pasteurization, ripening, starters, churning and moisture control; creamery and factory organization and management; construction and accounting.

Text: "The Butter Industry," Hunziker; "The Book of Ice Cream," Fisk.

306 DAIRY CATTLE JUDGING AND MANAGEMENT. Class 2 hours, laboratory 4 hours. Credit 3⅓.

A practical course in judging breeds of dairy cattle; the use of the score card and comparative show ring judging; pedigrees and breeding methods; record-keeping and principles of dairy management.

404 MARKET MILK AND DAIRY INSPECTION. Class 2 hours, laboratory 4 hours. Credit 3⅓.

A study of market milk and its control. Pasteurization and commercial handling of milk. Laboratory and field inspection of milk. Milk ordinances and board of health milk regulations.

Text: "City Milk Supply," Parker.

405 CHEESEMAKING. Class 1 hour, laboratory 6 hours. Credit 3.

Modern methods of factory cheesemaking, including practical instruction in the manufacture of various kinds of cheese; construction and management of cheese factories.

Text: "The Book of Cheese", Thom and Fisk.

407 MILK PRODUCTION. Class 2 hours, laboratory 4 hours. Credit 3⅓.

A study of factors concerned in improved standards of milk production; planning and equipping of dairy barns, milk houses; method of marketing milk, and use of milking machines. Practice work in the feeding and care of cows and calves, and in barn management, will be offered to students.

Text: "Dairy Cattle and Milk Production," Eckels.

409 DOMESTIC DAIRYING. Class 1 hour, laboratory 3 hours. Credit 2.

Elective for Junior and Senior girls. The care of milk and cream in the home; sanitary milk production; milk dietetics and hygiene; the use of dairy products as food; farm butter-making, and ice cream and ices.

Text: "The Story of Milk," Fredrickson.

411 DAIRY SEMINAR. Class 1 hour. Credit 1.

Each student will prepare a thesis on a dairy subject, arranged in outline form at the beginning of the semester, after consulting with the instructor. Students will be given the privilege of writing and reporting on dairy subjects of special interest to them.

Summary of certain bulletins will be required.

412 DAIRY SEMINAR. Class 1 hour. Credit 1.

Continuation of 403, second semester.

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DEPARTMENT OF ENTOMOLOGY

C. E. SANBORN, *Professor*

The courses of instruction are arranged to meet—

1. The requirements of agricultural students who desire to have practical information relative to the control of injurious insects of the farm, orchard and garden.

2. Requirements of students who desire to obtain a broader scope of entomology than above mentioned, for the purpose of demonstration work.

3. Requirements of students who desire to teach entomology in public schools.

4. Requirements of students who desire to specialize in horticulture.

5. Requirements of those who desire to specialize in entomology for the purpose of preparing themselves as nursery and orchard inspectors, or for positions in other colleges and universities, or in Federal work.

Work can be taken in this department leading to a master's degree.

The Experiment Station side of entomology is a closely allied division, and much of the practical side of the work taken by students can be gained through frequent assistance in the Experiment Station work of the department.

In addition to the regular well-equipped class laboratory, there is a Station laboratory located in the Apiary Building to which students have frequent access for the purpose of becoming familiar in the most practical way with apiary equipment, insecticides, spray machinery, and with all other kinds of apparatus used for controlling insects.

SUBJECTS

202 GENERAL ENTOMOLOGY. Class 3 hours, field and laboratory 2 hours. Credit 3⅔.

A systematic study of insects, and a study of their distribution, habits and methods of development with a view of ascertaining methods of control.
Text: Sanderson.

204 SANITARY ENTOMOLOGY. Class 2 hours, field and laboratory 3 hours. Credit 3.

A brief, systematic study of insects, and a study of their life history, and the habits of forms which disseminate disease and infect the household.
Text: Herrick.

303 HORTICULTURAL ENTOMOLOGY. Class 3 hours, field and laboratory 2 hours. Credit 3⅔.

Habits and distribution of orchard and garden insects, studied in such a way as to portray the most practical methods of controlling them. Modern types of spray machinery and equipment will be studied and used in spraying as a part of the practicum.
Text: By assignment.

306 APICULTURE. Class 3 hours, field and laboratory 2 hours. Credit 3⅓.

A general course in beekeeping.
Text: By assignment.

403 ADVANCED ENTOMOLOGY. Class, field and laboratory work by assignment.

(For graduates and undergraduates).

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DEPARTMENT OF HORTICULTURE

F. M. ROLFS, *Professor*
.....*Assistant Professor*
BOB WHITE, *Assistant Professor*
EARL MARKWELL, *Instructor in Secondary Vocational Horticulture*
R. PERRY ROBERTS, *Gardener*

The courses offered in this department are designed to give the student a thorough knowledge of the most important lines of horticultural work. Instruction consists of lectures, recitations and practical exercises in the laboratory and field.

The facilities for instruction include lecture-rooms, reading-room, laboratory, implement house, and a practical work-room; orchards of a number of the leading varieties of fruits, plantings of vegetables, a small nursery, a cellar, greenhouse, hotbeds, and cold-frames. The department is also well equipped with tools, implements and apparatus for giving practical work.

The office, laboratory and classroom are located on the third floor of Morrill Hall. The office and horticultural reading-room are combined. The room contains a number of the leading magazines, journals and reference works pertaining to horticulture, as

well as a set of Station and United States Government publications. It is intended for the use of students specializing in horticulture, to give them a broader view of the subject and to keep them in touch with current horticultural information. The laboratory is well equipped with modern apparatus for horticulture research work.

The implement shed, work-room, cellar, cold frames and propagating beds are located on the horticultural grounds. The work-room is supplied with packing-tables, workbenches, and other equipment for instructional work. The department is well equipped for giving practical instruction in the various methods of plant propagation; the study of buds and twigs of fruits and ornamental plants; a study of vegetables, fruits, nuts; the design of greenhouse structures and landscape plans; seed-testing, and storing, grading and packing of horticultural products. The cold-frames and hotbeds are of various types for home use and commercial purposes, and are used in the vegetable-forcing work.

The orchard, vineyard and garden of the Experiment Station offer practice in the pruning and training of various fruits, and also give an opportunity for comparison of the various cultural methods. The grounds, cellar and greenhouse afford ample material for laboratory and classroom work.

SUBJECTS

104 VEGETABLE GARDENING. Class 2 hours, laboratory 2 hours. Credit 2⅔.

This course includes the general principles of vegetable culture, dealing principally with the study of the home and city garden. Some attention will also be given to vegetable-forcing and market gardening. Garden soils and fertilizers as well as various cultural features will receive careful attention.

Text: "Productive Vegetable Gardening", Lloyd.

Reference: "Vegetable Gardening", Watts.

201 FRUIT-GROWING. Class 2 hours, laboratory 4 hours. Credit 3⅓.

A course designed to give the student a practical knowledge of fruit-growing and at the same time serve as a foundation work for the course in systematic pomology. It embraces a study of planting, pruning, spraying, cultivation, cover crops, frost prevention and fertilizers for orchards and small fruits. The practical work includes making of orchard plans, laying out the orchard, planting, pruning and spraying, and the identification and judging of fruits most commonly grown in Oklahoma.

Text: "Productive Orcharding", Sears.

Reference: "Fruit-Growing in Arid Regions", Paddock and Whipple.

203 FRUIT-GROWING. Class 2 hours, laboratory 2 hours. Credit 2 2-3.

An elective offered principally for women. Fruit-growing as adapted to the school and home is especially studied. This course includes a study of the principles and practices of some of the most important lines of horticultural work. Attention is given to the different methods of propagation, plant-

ing, cultivating and harvesting of the different varieties of fruit most commonly grown in Oklahoma. The practice work includes the making of orchard plans, laying out the orchard, planting, pruning and spraying. The identification and judging of fruits will also receive attention.

Text: "Productive Orcharding", Sears.

Reference: "Fruit-Growing in Arid Regions", Paddock and Whipple.

301 SYSTEMATIC POMOLOGY. Class 2 hours, laboratory 4 hours. Credit 3⅓.

A study of the origin and history of our cultivated fruits, and of the varieties best adapted to the home and commercial orchards. Trees representing the different species of our leading fruits are carefully observed, and also the influence and environment upon the behavior of the trees and on the development of their products. Practice is given in describing and identifying varieties of fruits and nuts, placing exhibits, and fruit-judging.

Prerequisite: Hort. 201.

Text: "Systematic Pomology", Waugh.

304 PLANT-BREEDING. Class 3 hours. Credit 3.

A study of the application of principles in breeding to improve our fruits and vegetables; the selection and fixing of varieties; the improvement of plants by selection. Special attention is given to breeding for quality and disease resistance. Practical work is given in the orchard, garden and greenhouse in cross-pollination, hybridization and selection.

Prerequisite: Bot. 303.

Text: "Plant-Breeding", Bailey and Gilbert.

Reference: "Genetics in Relation to Agriculture," by Babcock and Clausen.

305 CANNING AND HANDLING OF BY-PRODUCTS. Class 1 hour, laboratory 2 hours. Credit 1⅔.

A general study of horticultural by-products and fruits and vegetables especially adapted for canning. The different methods of canning, evaporating, drying, and the manufacture of vinegar and fruit juices is studied. Buildings, machinery and apparatus necessary for successful work receive considerable attention. Practical work is given in all the fundamental principles connected with the operation of a cannery.

Text: "Successful Canning and Preserving," by Ola Powell.

306 NURSERY PRACTICE. Class 2 hours, laboratory 2 hours. Credit 2⅔.

A study of methods by which plants are propagated by means of division, cuttings, layering, budding and grafting; production and care of seeds, seed-testing, bulb reproduction; exercises in the laboratory in propagating garden seeds, flowers, shrubs, forest and fruit trees; nursery practice.

Elective.

Text: "Plant Propagation", Kains.

Reference: "The Nursery Book", Bailey.

303 FLORICULTURE. Class 2 hours, laboratory 2 hours. Credit 2⅔.

A course in the cultivation and care of greenhouse and home plants, as well as a study of the annuals and perennials adapted to Oklahoma. The proper soils, planting of seeds, transplanting, making of cuttings, principles of heating and ventilating, plant diseases and insect control will receive careful attention. Problems in grouping and arranging of flowers for color harmonies while growing, as well as pleasing effects for decorating purposes, are also included in the course.

Text: "Principles of Floriculture", White.

Reference: "Manual of Gardening", Bailey.

401 COMMERCIAL POMOLOGY. Class 2 hours, laboratary 2 hours. Credit 2⅔.

A course treating of the care of fruit trees, the management of orchards and the handling of fruit. Problems of pruning, spraying, cultivating and frost prevention are studied; also the approved methods of harvesting, grading, packing, transportation, marketing, storing, and constructoin of cold storage plants. A careful study of the control measures for insect pests and fungus and bacteriol diseases are also gievn considerable attention.

Text: "Fruit-Harvesting, Marketing and Storing", Waugh; "American Fruit Culturist", Fuller.

402 LANDSCAPE GARDENING. Class 2 hours, laboratory 2 hours. Credit 2⅔.

A study of the principles involved in the planning and decorating of public grounds and the selection of ornamentals adapted for planting in Oklahoma. Practice consists in designing plans, laying out drives and walks, and planting flower beds, shrubs and trees.

Text: "Landscape Gardening", Maynard.

Reference: "The Landscape Beautiful", Waugh.

404 HISTORY AND LITERATURE OF HORTICULTURE. Class 2 hours. Credit 2.

Open only to students taking the horticultural course. A study of current horticultural literature, including a review of horticultural periodicals, bulletins and United States Government publications.

Text: "Fruit Harvesting, Marketing and Storing," Waugh; "Bush Fruits", Card.

Reference: "The Apple", Waugh; "Peach-Growing", Gould; "Foundation of American Grape Culture", Munson.

405 FORESTRY. Class 2 hours. Credit 2.

A lecture and field course dealing with the general principles of forestry, relation of forestry to agriculture, windbreaks, shelter belts, lumbering, and conservation.

Prerequisite: Bot. 101, 102.

Text: "Principles of American Forestry", Green.

Reference: "Practical Forestry", Gifford.

406 FORESTRY. Class 3 hours, laboratory 2 hours. Credit 3⅓.

A study of the fundamental principles of forestry, together with a detailed study of the forests of Oklahoma. This course is designed to meet the needs of students who wish to specialize in forestry.

Prerequisite: Hort. 306, 405; Bot. 305.

Theory work given by lectures.

409 THESIS. Laboratory 3 hours. Credit 1.

Special subject requiring some independent investigation; results to be presented in written report.

Required of all horticultural students.

410 THESIS. Laboratory 3 hours. Credit 1.

Special subject requiring some independent investigation; results to be presented in written report. A continuation of 409.

DEPARTMENT OF POULTRY HUSBANDRY

HARRY EMBLETON, *Professor*
D. C. BROWER, *Farm Foreman*

The growing interest in the poultry industry in this State is creating a considerable demand for knowledge along poultry lines, both from the practical standpoint and from the standpoint of the poultry educator. The courses in this department are designed to meet both of these conditions.

The Jackson Poultry Law requires that a majority of the schools in Oklahoma hold a poultry and egg show during the year. This means that the teachers in the State, in order to be qualified to teach their work, should have some poultry knowledge. Our course of instruction takes this condition under consideration and makes it possible for teachers to get this necessary poultry knowledge.

There is a growing demand on the part of the boys and girls for purebred poultry and for information as to what is purebred poultry. The course is designed to give the teacher this necessary information.

The awakening of poultry interest is countrywide, and is creating a great demand for scientifically trained poultrymen for instructional, investigational and extension work. A student having completed the course in poultry husbandry will be eligible for work of this kind, both with the State and Government.

The Poultry Department is equipped with a large administration building which includes classroom, incubator cellar, egg rooms, etc. This building is located at the plant. The plant consists of thirteen acres of land arranged with breeding and laying houses so as to get the best results. The houses consist of one long ten-pen laying house and twelve other smaller houses to use for breeding and experimental work. The brooding system consists of one larger brooder house of a 2,000-chick capacity, with several smaller houses for smaller flocks. Most of these houses are equipped with colony brooder stoves. The incubation equpiment consists of two large incubation cellars containing one 1,200-egg incubator and several smaller ones of many different makes.

The stock consists of fifteen different breeds and varieties, which are used for instructional, investigational and breeding purposes. All of the stock is trap-nested, and records of the same are available for use in the work. The capacity of the plant is 1,000 birds. At the present time the size of the flock is 800 birds.

SUBJECTS

305 FARM POULTRY. Class 2 hours, laboratory 4 hours. Credit 3⅓.

This course considers the identification and characteristics of the principal breeds and varieties of poultry; the feeding of the farm flock, with a week's feeding practice morning and night at the farm; the comparison of the different types of incubators and brooders, poultry house construction; care of growing stock; breeding for egg-production; poultry diseases; dry picking of poultry; marketing poultry and eggs; caponizing; study of the egg; anatomy; judging poultry and eggs.

This course is outlined for teachers, and persons raising poultry on the farm. It is arranged to give the teachers a good foundation in poultry teaching for the future school work in the State, and to aid the producer to get profitable egg production.

No prerequisite.

308 INCUBATION AND BROODING. Class 1 hour, laboratory 6 hours. Credit 3.

Each student will be required to select eggs, operate a machine through an entire hatching, keep all records pertaining to the hatch, feed and care for the little chicks after they hatch out for a two weeks' period. This work comes early in the morning before 8 o'clock, and in the afternoon between 4:30 and 5:30 o'clock. Every student will be required to be at the farm morning and night at these hours, Sunday included, for five consecutive weeks.

No prerequisite.

309 POULTRY-JUDGING. Class 1 hour. Laboratory 4 hours. Credit 2⅓.

The work in this course will consist of practical work in judging fowls by the standard set forth in the American Standard of Perfection. This is judging them purely from the fancy standpoint. In addition to judging, the question of mating pens and running of poultry shows will be taken up in connection with this work.

No prerequisite.

401-402 POULTRY SEMINAR. Class 1 hour. Credit 1.

This course will consist of the study of the most advanced poultry problems and experimental work, and will keep in touch with the newest ideas and information obtainable for the poultry work.

406 POULTRY MANAGEMENT. Class 2 hours. Credit 2.

This course embraces the business end of the poultry flock. Figuring of incubation capacities, brooding capacities, winter laying house capacities, dry-old chick and hatching egg question, possible profits from a definite size poultry flock, the choosing of poultry farms as to their topography, location, climatic conditions, etc., to be considered. The scoring of poultry farms from the standpoint of poultry farm efficiency will be considered.

Prerequisite: P. H. 305, 308, 309, 401, 403.

403-404 POULTRY RESEARCH. Class 1 hour, laboratory 4 hours. Credit 2⅓.

Each student enrolled in this course will be given a definite, special piece of experimental work to be worked out on their own responsibility. This will give them a chance to use their initiative, imagination and poultry knowledge obtained from the previous courses. It will also give them an insight into methods of conducting experimental work.

Prerequisite: P. H. 305, 308, 309.

DEPARTMENT OF RURAL ENGINEERING

LESLIE E. HAZEN, *Professor*

This department concerns itself with those branches of engineering science most applicable to the needs of farming communities. The scope of its work is limited to those phases of engineering which are of direct importance because utilized in practice by farmers themselves. Two distinct lines of teaching are undertaken, the first being elementary courses for students specializing in other lines of agricultural activity, the second being basic courses for those desiring to train themselves for positions as agricultural engineering teachers, farm machine experts, county agents, farm managers, and general farmers. We are living in a time when a farmer's success as a producer is largely measured by his skill with machinery and field engineering practice.

SUBJECTS

101 FARM MECHANICS. Class 1 hour.. laboratory 3 hours. Credit 2.

This course is for the purpose of introducing the student to the study of those mechanical processes and features of design incident to the selection and operation of horsedrawn farm field machinery.

The laboratory course is arranged to give practice in both adjustment of machine parts and mechanical sketching.

103 IMPLEMENT DRAFTING. Laboratory 6 hours. Credit 2.

Two three hour drafting periods in which exercises in freehand sketching. lettering and mechanical drafts of implement parts are undertaken. Each student will prepare tracings and make blueprints for an assigned portion of a sulky plow.

201 SPRAY MACHINERY. Class 1 hour, laboratory 2 hours, and report. Credit 2.

A study of pumps, pressure regulators, spray nozzels, tanks, pressure gages and agitators for students in horticulture. Practice in the usual proceedures for adjustment and maintenance of such machinery is given.

Elective for agricultural students.

303 FARM MOTORS. Class 2 hours, laboratory 4 hours. Credit 3 1-3.

A study of the working principles and operation of gas and oil engines. Special attention is paid to the modern oil engine as an economic source of power for irrigation and other heavy-duty work. Special emphasis is given to trucks and tractors.

Prerequisite: R. E. 101.

304 FARM STRUCTURES. Class 1 hour, laboratory 3 hours. Credit 2.

One lecture and one drafting period per week in which the economic design of farm buildings is considered. Must be taken in conjunction with the course in farm sanitation.

306 FARM SURVEYING. Class 1 hour, laboratory 6 hours. Credit 3.

The scope of the work in this course includes the common process necessary in laying out terraces, tile drains and irrigation ditches.

308 FARM SANITATION. Class 1 hour. Credit 1.

This is a discussion of the sewage disposal methods in vogue for country use, special emphasis being laid on the septic tank.

Prerequisite: Elements of chemistry and bacteriology.

Elective for agricultural students.

402 DOMESTIC MACHINERY. Class 2 hours. Credit 2.

This course will embrace a discussion of water supply systems, pumps, sewing, fanning, elevating and washing machinery, and farm shop equipment designed for home economics students desiring information on these lines. Saturday afternoon work two or three times during the semester may be required.

Elective for agricultural and home economics students.

409 POWER-DRIVEN MACHINERY. Class 2 hours, laboratory 3 hours. Credit 3.

A study of the various power-driven machines of the farm—grinders, shellers, ensilage-cutters, threshers, irrigation pumps, and water supply systems. The installation of gearing, belting and shafting in the farm power-house.

Prerequisite: R. E. 303, 304.

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GENERAL AGRICULTURE

402 COLLEGE AND EXPERIMENT STATION WORK, ORGANIZATION AND FUNCTION. Class 1 hour. Credit 1.

This course is intended to familiarize the Senior students with the history and organization of the American Land Grant Colleges, including the Agricultural Experiment Stations and the Extension Divisions. A study is made of the strong and weak points of the institutions as compared with other institutions of higher education in the United States from the standpoint of both the undergraduate and graduate student. The amount of Federal and State aid given these institutions and its distribution into educational, research and extension lines is discussed. The further object is to familiarize the student with the lines of work being undertaken in the various Experiment Stations, and the special features that are made prominent in the various states. The course is designed to prepare students for entrance into College and Station work where such is desired, and to give those who are going into the more practical application of their calling upon the farm an opportunity to become familiar with the different institutions and the best means of utilizing the information available.

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DEPARTMENT OF AGRICULTURAL EDUCATION

O. M. CLARK, *Professor*

The Department of Agricultural Education is a department of the School of Agriculture established to offer the professional work for prospective teachers of vocational agriculture in schools of secondary grade. The work offered meets the provisions of the Federal act, and the work of the department is under the supervision of the State Board for Vocational Education.

The work of the department is confined largely to instruction in methods of teaching agriculture, practice teaching, and study of plans of organization of vocational schools, while the subject mat-

ter proper in agriculture is under the supervision of the subject matter department.

For description of four-year course of study, see table of four-year courses, preceding.

SUBJECTS

403 AGRICULTURAL EDUCATION. Class 3 hours, laboratory 3 hours. Credit 4.

Organization and development of agricultural education in the United States, with special reference to teaching agriculture in schools below college rank; selection, organization and presentation of subject matter adapted to use in secondary schools.

421 AGRICULTURAL EDUCATION—PRACTICE TEACHING. Practice 4 hours. Credit 1⅓.

Development of lesson plans and methods in secondary education; observation and practice teaching, with full charge of classroom under competent supervision.

Prerequisite: Edu. 316.

Required of all students preparing to become "Smith-Hughes" teachers of agriculture. Not to be taken before the Junior year.

422 AGRICULTURAL EDUCATION—PRACTICE TEACHING. Practice 4 hours. Credit 1⅓.

This course is a continuation of Agricultural Education 421.

Prerequisite: Agricultural Education 421.

DIVISION OF VOCATIONAL AGRICULTURE

(Non-Collegiate)

The following vocational courses are offered by the School of Agriculture:

1. Secondary Vocational Agriculture, two years.
2. Farmers' Course in Agriculture.
3. Six Weeks' Regular Dairy Course.
4. One Week's Special Dairy Course.

SECONDARY VOCATIONAL AGRICULTURE (Two Years)

JAMES W. DAY, *Principal*
R. C. MORGAN, *Instructor in Agronomy*
H. D. SHIFLET, *Instructor in Vocational Agronomy and Vocational Dairying*
FRED J. BEARD, *Instructor in Animal Husbandry*
EARL MARKWELL, *Instructor in Horticulture*

First term, September 6, 1921; closes November 25, 1921.
Second term, November 28, 1921; closes February 25, 1922.
Third term, February 28, 1922; closes May 20, 1922.

This course is planned for students who have completed the eighth grade of the common schools, and is designed to fit the student upon the completion of the course for diversified farming as

may be satisfactorily practiced under Oklahoma conditions. The course can not be considered in any sense a specialized one. Enough of the vocational subjects, such as livestock, crops, soils, dairying, etc., is included to give the student reasonable proficiency. The foundations are laid, and it is believed that the students will be stimulated to continue in their chosen specialties.

Specialists will handle the classes in every case, and similar opportunities for the use of laboratories, greenhouse, livestock, and farms will be given to students in this course as in the regular College coures. The work consists of two years of study of three terms each. Two of the terms in each year are devoted to the usual high school subjects while one term is devoted to the various phases of Agriculture. The course is intensely practical and is so arranged that the student may take the agricultural work any term.

VOCATIONAL AGRICULTURE

(FIRST YEAR)

(One Term)

	Cl.	Pr.	High S. Units
Agronomy 15	2	(2)	1½
An. Husby. 15	2	(4)	
Argonomy 16	2	(4)	
Poultry 15	2	(4)	
Entomology 15	2	(2)	
Horticulture 15 or Horticu ture 25	2	(2)	

(One Term)

	Cl.	Pr.	High S. Units
Arrithmetic 15	4		¼
V. English 15	6		½
Gen. Science 15	2	(2)	¼
V. Woodwork 15		(6)	1-5
V. Algebra 15 or Am. History 15	6		½

(One Term)

	Cl.	Pr.	High S. Units
Arithmetic 16	4		¼
V. English 16	6		½
Gen. Science 16	2	(2)	¼
V. Forge 16		(6)	1-5
V. Algebra 16 or Am. History 16	6		½

(SECOND YEAR)

(One Term)

	Cl.	Pr.	High S. Units
Agronomy 25	2	(2)	1½
Dairlying 25	2	(4)	
Agronomy 26	2	(2)	
Farm Mech. 25	2	(2)	
An. Husby. 25	2	(4)	
Horticulture 25 or Horticulture 15	2	(4)	

(One Term)

	Cl.	Pr.	High S. Units
V. English 25	6		½
Business 21	6		½
Citizenship 25	4		¼
V. Geometry 25 or Comm. Geog. 25	6		½

(One Term)

	Cl.	Pr.	High S. Units
V. English 26	6		½
Business 22	6		½
Citizenship 26	4		¼
V. Geometry 26 or Physiology 22	6		½
	4	(2)	½

SUBJECTS

AGRONOMY

15 AGRONOMY. Class 2 hours, laboratory 2 hours.

Attention will be paid to the fundamental principles underlying soil management; study will be made of how plants feed and grow; properties of the soil; plant food in the soil; conservation of soil fertility; crop rotation; barnyard manure; humus; fall plowing and testing soil for acidity.

Text: "Soils and Soil Fertility", Whitson and Walster.

16 AGRONOMY. Class 2 hours, laboratory 4 hours.

Practical lessons will be given in harvesting, storing, seedbed preparation, planting and cultivating the leading cereal and fiber crops of Oklahoma. Much time will be given to grain-judging, cotton-judging, seed selection, seed-testing and treatment for smut.

Text: "Productive Farm Crops", Montgomery.

25 AGRONOMY. Class 2 hours, laboratory 2 hours.

Practical lessons will be given in seedbed preparation, planting, cultivating, harvesting and storing the leading forage crops of Oklahoma. Laboratory work will consist of field observations, seed selection and seed-testing.

Text: "Productive Farm Crops", Montgomery.

26 FARM ACCOUNTS AND MANAGEMENT. Class 2 hours, laborary 2 hours.

Simplified methods of keeping farm accounts and records will be given, including stock and crop accounts, expenses and receipts, which will enable the farmer to determine his income. Study is made of points to be considered in the selection of the farm, types of farming, planning and arrangement of the farmstead, the fields and crop rotations. Special emphasis is laid on the principles underlying successful management of the farm business in order to receive the greatest continuous profit from the farm.

Text: "Simplified Farm Account Record Book", Hoke and Beeson, "Farm Management", Andrew Boss

ANIMAL HUSBANDRY

15 LIVESTOCK. Class 2 hours, judging 4 hours.

This course is intended to give the student an insight into the business of judging animals and by actual practice to acquaint him with the good points of the various classes of livestock. The course is somewhat general. Some time will be given to market types, and a short study will be made of the production of correct types of animals.

No text.

25 LIVESTOCK. Class 2 hours, judging 4 hours.

This course gives the student a training in breed types of animals. The student studies the history of our important breeds of animals, and with the good livestock of the Animal Husbandry Department before him he gets acquainted with the types and characteristics of the more important breeds.

Text: "Animal Husbandry for Beginners", Plumb.

DAIRYING

25 DAIRYING. Class 2 hours, laboratory 4 hours.

An elementary course in dairying, including the testing of milk and cream by the Babcock test, the operation of cream separators and farm churning of butter, cottage cheese and ice cream-making; a study of dairy cows, their feeding and management, and the production and handling of market milk.

Text: "Dairy Farming", Michels.

ENTOMOLOGY

15 ENTOMOLOGY. Class 2 hours. laboratory 2 hours.

Instruction will be given in lectures, consequently no textbook will be required. The habits of injurious and beneficial insects will be explained. Methods for controlling the injurious forms will be tested in practice as far as convenience will permit. Methods for developing beneficial forms will be taught. Primary practice in beekeeping will be given.

HORTICULTURE

15 HOME VEGETABLE GARDENING. Class 2 hours, laboratory 4 hours.

This course includes the general principles of vegetable culture and a study of the home garden.

25 HOME FRUIT-GROWING. Class 2 hours, laboratory 2 hours.

A course dealing with the general principles of fruit-growing, including a study of cultural requirements, propagation, and the relative importance of the different fruits for home use.

FARM MECHANICS

25 FARM MECHANICS. Class 2 hours, laboratory 2 hours.

This course consists of an elementary study of the various farm implements used in seedbed preparation, seeding, cultivation and harvesting.

Laboratory on rope work, mechanics, and terracing.

POULTRY

15 POULTRY. Class 2 hours, laboratory 4 hours.

The work in this course will cover all phases of poultry work necessary for practical poultry-raisers, either on the farm or in town. A study of breeds and types will be made from the utility standpoint. Feeding, incuabtion and brooding, housing, poultry diseases, marketing of poultry and eggs, caponizing, picking and killing, and study of the egg will be considered. Special stress will be put upon factors which deal primarily with egg production.

FARM SHOPS

15 WOODWORK. Practice 6 hours.

The object of the course is to develop skill that can be applied to the farm.

16 FORGE. Practice 6 hours.

This course includes heating, shaping, and welding. tempering and hardening of steel, pipe-fitting and drill press work.

MISCELLANEOUS

15-16 VOCATIONAL ALGEBRA. Class 6 hours.

The solution of practical problems is included in the aim of this course. Pure algebra as a foundation is mastered. The graphic method in equations is stressed. Quadratic equations are included in the work covered.

15-16 AMERICAN HISTORY. Class 6 hours.

High school history covering the period from the discovery of America to the present.

15-16 ARITHMETIC. Class 4 hours.

This course gives an intensive drill in common operations and involves principles rather than short-cut calculations. The student's language and mental method are looked after.

21-23 BUSINESS. Class 6 hours.

A study is made of elementary business principles and bookkeeping.

25-26 CITIZENSHIP. Class 4 hours.

This course includes a study of the development and structure of the government of state and nation. The subject matter is so selected as to relate the student to the times and give him an appreciation of the duties of a citizen.

25 COMMERCIAL GEOGRAPHY. Class 6 hours.

The course includes a study of trade routes and the production, transportation and consumption of the products of commerce.

15-16 VOCATIONAL ENGLISH. Class 6 hours.

A study is made of composition and grammar. Themes on subjects of agricultural interest are written for individual correction and revision. Two or three classics are read each semester.

25-26 VOCATIONAL ENGLISH. Class 6 hours.

This course includes composition, theory and practice. Three or more classics are read each semester.

15-16 GENERAL SCIENCE. Class 2 hours, laboratory 2 hours.

Elementary physics, chemistry, and biology are studied in such a way as to aid the student in his mastery of agricultural problems. The subject is approached from the vocational point of view.

22 PHYSIOLOGY. Class 4 hours, laboratory 2 hours.

This is a fundamental course in physioligy. Charts, models, and apparatus are used.

25-26 VOCATIONAL PLANE GEOMETRY. Class 6 hours.

The customary high school course in this subject is given.

SHORT COURSE IN PRACTICAL AGRICULTURE

First term begins November 28; closes December 23, 1921.
Second term begins January 2—to January 28, 1922.
Third term begins January 30—to February 25, 1922.

JAMES W. DAY, *Director*

The Short Course in Agriculture, which has proved to be very popular, will be continued. This is a modification of the Agriculture offered to Vocational students. Such changes have been made as to better adapt the course to the needs of young men from the farms of Oklahoma who feel that they have only a very short time to devote to study.

The course as now outlined consists of two years' work of twelve weeks each. Each year is divided into three terms of four weeks each. Each term is complete in itself, and students may

enter at the beginning of any term, but they are urged to take the full course, especially since the second year's work is advanced work, and students who have not completed the whole of the first year may find difficulty in carrying it.

This course is designed for young men from the farms of Oklahoma who have not the time to take the vocational course or a four-year college course in scientific agriculture in this institution, nor yet the time to take the regular vocational course, yet who desire a training in the practical application of the science of agriculture to the business of farming. It provides a course of study that will give the student a maximum of the agricultural studies relating to farm and livestock work, and in addition gives as much of the general studies os may be most useful in training young men to become leaders in their chosen calling on the farms of the State.

The entire equipment of the College—the teaching force, the library, and the results obtained in experimental work—are at the service of the students of the Short Course.

There are no examinations to be passed for admission to this course. The prospective student must be at least sixteen years of age, and must have had training equivalent to a good common school education. If interested, send to the Dean of Agriculture, A. & M. College, Stillwater, Oklahoma, for detailed information.

SHORT COURSE IN AGRICULTURE—COURSE OF STUDY

FIRST YEAR

FIRST TERM
Nov. 25 to Dec. 23, 1921

	Hours Rec.	Lab.
Field Crops 1	6	8
Stock-Judging 1	6	8
Agricultural Chemistry 1	4	
Shop 1		8
Gymnasium		2

SECOND TERM
Jan. 3 to Jan. 28, 1922

	Hours Rec.	Lab.
Vegetable Gardening	6	4
Farm Dairying 1	4	8
Farm Poultry 1	4	8
Library Practice 1		4
Gymnasium		2

THIRD TERM
Jan. 30 to Feb. 25, 1922

	Hours Rec.	Lab.
Soil Physics 1	6	8
Farm Mechanics 1	6	8
Bookkeeping 1		8
Forestry and Landscape Gardening 1	4	
Gymnasium		2

SECOND YEAR

FIRST TERM

	Hours Rec.	Lab.
Fruit-Growing 1	6	6
Dairy Management 1	6	4
Soil Fertility 1	6	
Prices, Markets and Credits 1	3	
Vet. Science 1	4	6
Gymnasium		2

SECOND TERM

	Hours Rec.	Lab.
Field Crops 2	6	4
Breeds and Breeding 1	3	6
Farm Motors 1	6	8
Bacteriology 1	6	
Gymnasium		2

THIRD TERM

	Hours Rec.	Lab.
Animal Production 1	3	6
Poultry-Judging 2	6	4
Shop 2		8
Insects and Their Control 1	3	
Farm Management 1	5	
Rural Life and Institutions 1	3	
Gymnasium		2

SUBJECTS

LIBRARY PRACTICE 1. Laboratory 4 hours per week.

This course is designed to teach the student how to look up material upon

any subject in which he may be interested. Subjects will be assigned, and the material covering the subject will be located in the library, read and discussed.

SHOP 1 FORGING AND IRONWORK. 8 hours per week.

Common practice in forging, building fire, drawing out, upsetting, shaping, welding, drillpress work, taps, pipefitting and soldering are taught in their practical application to farm life.

Text: "Forge Practice", Bacon.

SHOP 2 WOODWORK AND FARM CARPENTRY. 8 hours per week.

Elemental tool process used in common woodwork, care of tools, saw-sharpening, brace and rafter-cutting covered by lectures and practice on actual construction work.

Text: "Woodwork Notes", Hunt; "Carpentry", Griffith.

FIELD CROPS 1. Class 6 hours, laboratory 8 hours.

The various cereals and varieties of cotton which are adapted to Oklahoma conditions are studied in this course. The following subjects, as related to these crops, will be considered: Seedbed preparation, planting, cultivating, harvesting and storing. The fundamental principles of crop production are developed as demonstrated by practical experience. In the laboratory the work is devoted to grain-judging, seed-selection, seed-testing and the treating of seed for smut.

SOIL PHYSICS 1. Class 6 hours, laboratory 8 hours.

A practical course dealing with the underlying principles of soil management. Special stress will be placed on the problem of soil acidity, alkali and special crop adaptation to various types of soil.

SOIL FERTILITY 1. Class 6 hours, laboratory 8 hours.

In this course emphasis will be placed on crop rotation, green manures and barnyard manures as a means of maintaining soil fertility. The proper use of fertilizers, kind and applicability will be discussed.

FIELD CROPS 2. Class 6 hours, laboratory 4 hours.

The crops considered in the classroom are the grain sorghums and various forage crops adapted to Oklahoma. The laboratory time is taken up with the judging, selection and testing of grain sorghum heads and seeds. Weeds and weed seed, their identification, eradication and control are given considerable time.

FARM BOOKKEEPING 1. Laboratory 8 hours.

A practical course dealing with the underlying principles and methods of farm bookkeeping enabling the farmer to determine the yearly income. Special emphasis will be placed on cost of production, farm inventories, stock and crop accounts and their relation to the organization and management of the farm business in order to receive the greatest continuous profit from the farm.

STOCK-JUDGING 1. Lecture 6 hours, laboratory 8 hours.

The lecture work of this course comprises a study of all the common feedstuffs of Oklahoma, including mill feeds and factory by-products, as well as those grown on the average farm. A study of the composition of feedstuffs, balancing rations, etc., will also be made.

The laboratory work includes a thorough drill in judging horses, beef cattle, dairy cattle, sheep and swine. The student first learns the use of the score card, and later judging by comparison is given. This course will be given in a practical manner. It also should be a vaulable course, as some of the best stock in America will be used, including an opportunity to study the individuals which make up the College show herds.

Text: On breeding, Henry and Morrison; text on judging, "Judging Livestock", John A. Craig.

BREEDS AND BREEDING 2. Lecture 3 hours, laboratory 6 hours.

The lecture work will be devoted to the subject of animal-breeding. Some of the topics to be discussed are as follows: Crossing, hybridizing, grading, prepotency, linebreeding and inbreeding, and other practical subjects.

In the laboratory the judging of the different breeds ofo livestock will be given. The breed characteristics of each breed will be studied.

Text in animal breeding, "The Breeding of Animals", Mumford; "Judging Breeds of Livestock", Gay.

ANIMAL PRODUCTION 1. Lecture 3 hours, laboratory 6 hours.

The lecture work will be taken up with a study of the best practices for the production of beef cattle, dairy cattle, horses, sheep and swine. Caring, housing and practical feeding methods will also be discussed.

The laboratory work in the third period will be known as Advanced Stock-Judging. Plenty of drill in judging will be given, and from this class a student judging team will be selected to compete at the Southwest American Livestock Show, Oklahoma City, each year.

FARM MECHANICS 1. Class 6 hours, laboratory 8 hours.

A study of the implements and machines used in the production of the common field crops along with laboratory in rope work, mechanical devices, and terracing.

FARM MOTORS 1. Class 6 hours, laboratory 8 hours.

A practical course is given in the operation and working principles of the various types of stationary gas and oil engines, and tractors. Special emphasis is given to the practical application of the tractor and power to farm use.

INSECTS AND THEIR CONTROL 1. Class 3 hours.

General lectures will be given pertaining to the control of insects injurious to field crops, horticulture and gardens. The lectures will either be accompanied by lantern slide illustrations or with exhibits of the pests under consideration. Control methods will be demonstrated when possible.

FARM POULTRY 1. Class 4 hours, laboratory 8 hours.

This is a practical course in poultry, aiming to fit the person to give more intelligent care to the farm flock. It will also give a good foundation to any one wanting to go into the poultry business on a specialized basis.

This course will include work upon the identification of breeds and varieties, housing, feeding, diseases, marketing, breeding for egg production, caponizing, incubation and brooding, and poultry management.

All the facilities of our large poultry plant, including twenty-seven pens of fifteen different breeds and varieties, latest model incubators, and blue-flame coal oil burning brooders, will enable the actual work being done with all these necessary poultry appliances.

POULTRY JUDGING 2. Class 6 hours, laboratory 4 hours.

Poultry-judging and preparing birds for show purposes will be discussed and the actual work done. Our fifteen varieties of poultry, representing nearly all the different types, colors and feather patterns in poultry, will assure the subject being covered in a broad way.

FARM DAIRYING 1. Class 4 hours, laboratory 8 hours.

Lectures and laboratory work on the testing of milk and cream by the Babcock test; the production, care and handling of milk and cream for city markets and creameries; the care and ripening of cream for farm butter-mak-

ing; care and operation of cream separators, and the marketing of dairy products. The course offers practical instruction in all branches of farm dairying.

DAIRY MANAGEMENT 1. Class 6 hours, laboratory 4 hours.

Lectures and practical instruction in the breeding, feeding and management of dairy cattle; keeping of records and advanced registry testing; cow-testing and purebred bull associations.

PRICES, MARKETS AND CREDITS 1. Class 3 hours.

The basis for this course is laid in a brief comparison of the principles of economics, business and marketing. In the study of prices, markets and credits, the following points are emphasized: Effect of cost of production on price, the right price, the trend of prices of agricultural products and reasons therefor; location of markets, creation of market demand, inside organization of markets, the improved use of market machinery by farmers, with special attention to cooperative marketing; use of money and credit in business; the advantages and dangers of credit; the organization of credit machinery, including description of Federal Farm Loan system.

RURAL LIFE AND INSTITUTIONS 1. Class 3 hours.

An examination of the factors underlying rural social progress and prosperity. Emphasis is given to the possibility of coordinating all the agencies of rural life. Special attention is directed to the methods by which the social advantages of city life may be brought to the farm. The farm home, consolidated school, community church, good roads, tenancy and community cooperation, are viewed in their relation to social and economic development.

VEGETABLE GARDENING 1. Class 6 hours, laboratory 4 hours.

This course includes the general principles of vegetable culture, dealing principally with the study of the home garden. Some attention will be given to vegetable and market gardening. Garden soils, fertilizers and various cultural features will also receive attention.

Text: "Productive Vegetable-Growing", Lloyd.

Reference: "Vegetable-Growing", Boyle.

FRUIT-GROWING 1. Class 6 hours, laboratory 6 hours.

The topics considered include selection of orchard sites, choosing varieties, planting, pruning, cultivating and fertilizing. The practical work includes making of orchard plans, laying out the orchard, planting, pruning and spraying. The identification of fruits will also be given some attention.

Text: "Productive Orcharding", Sears.

Reference: "Fruit-Growing in Arid Regions", Paddock and Whipple.

FORESTRY AND LANDSCAPE GARDENING 1. Class 4 hours.

This work takes up the study of the needs of Oklahoma farms for wind breaks and woodlots with special reference to their value as protection to buildings, orchards and fields, as well as their value for fuel and post purposes.

The fundamental principles involved in planting and arranging the home and public grounds will also be briefly considered.

Theory work given by lecture.

Reference: "Farm Forestry", Ferguson; "Landscape Gardening as Applied to Home Decoration", Maynard.

BACTERIOLOGY 1. Class 6 hours.

This work will consist of a series of lectures and demonstrations dealing with rural sanitation, causes and means of control of the more common infectious diseases of livestock. Current bulletins dealing with diseases of livestock will be used as references. No text will be required.

VETERINARY MEDICINE 1. Class 4 hours, laboratory 6 hours.

The object of this course will be to acquaint the student with the more common diseases of livestock. Prevention of disease and care of stock will receive more attention than treatment. Frequent clinics will be held to familiarize students with location of various troubles. Students will be given opportunity to know the current methods of vaccinating hogs, cattle and other farm animals.

Text: "Diseases of Farm Animals", Craig.

AGRICULTURAL CHEMISTRY 1. Four lectures each week.

A brief informational course intended to acquaint the student with the more important applications of chemistry to practical agriculture. The lectures are accompanied with mimeographed outlines and very numerous demonstration experiments.

SHOP 1 FORGING AND IRONWORK. 8 hours per week.

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FARMERS' COURSE IN AGRICULTURE

This course is given in August under the direction of the extension division. For information write to the director of extension, Oklahoma A. & M. College Stillwater, Oklahoma.

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SIX WEEKS' REGULAR DAIRY COURSE

This course is given November 7 to December 17, 1921, under the auspices of the Dairy Department. For information write to the Dean of Agriculture, Oklahoma A. & M. College, Stillwater, Okla.

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ONE WEEK'S SPECIAL DAIRY COURSE

This course is given December 26, 1921. to December 31, 1921. and is designed primarily for ice cream makers, butter makers, milk inspectors and creamery managers. For information and description of the course write to the Dean of Agriculture, Oklahoma. A. & M. College, Stillwater, Oklahoma.

AGRICULTURAL EXPERIMENT STATION

HENRY G. KNIGHT, *Director*

The Agricultural Experiment Station was located at the A. and M. College at Stillwater in July, 1891, under a provision of an Act of Congress approved March 2, 1887, commonly known as the Hatch Act, and entitled "An Act to establish Agricultural Experiment Stations in connection with colleges established in the several States under the supervision of an Act approved July 2, 1862, and of Acts supplementary thereto". The objects of the Experiment Station are clearly set forth in the second section of the Act as follows:

> "That it shall be the object and duty of said Experiment Stations to conduct original researches or verify experiments on the physiology of plants and animals; the diseases to which they are severally subject, with the remedies for the same; the chemical composition of useful plants at their different stages of growth; the comparative advantages of rotative cropping as pursued in a varying series of crops; the capacity of new plants or trees for acclimation; the analysis of soils and water; the chemical composition of manures, natural and artificial, with experiments designed to test their comparative effects on crops of different kinds; the adaptation and value of grasses and forage plants; the composition and digestibility of different kinds of foods for domestic animals; the scientific and economic questions in the production of butter and cheese; and such researches and experiments bearing directly on the agricultural industry in the United States as may in each case be deemed advisable, having due regard to the varying conditions and needs of the respective States and Territories."

At the present time the Oklahoma Agricultural Experiment Station receives funds for its support from two sources, namely:

The Hatch and Adams appropriations are received from the Federal Government in amounts of $15,000.00 each per annum, as provided for by Act of Congress, March 2, 1887, and March 16, 1906, respectively. The Experiment Station also has use of certain State funds appropriated by the state legislature for maintenance and support of the Experiment Station. During the past fiscal year this latter fund was $10,000.00. This does not include the cost of heating, lighting, janitor service and other items of general administrative expense. This makes a total of $40,000.00, which has been the amount received for the past two years.

Under the Federal law, the Adams fund must be spent strictly for original research of approved character, and may not be used for general administration, for printing or for farm demonstrations. The Hatch appropriations may be used for general research, for general administration of the Station, and for printing. The State funds

received through appropriation by the Board of Agriculture may be used for general maintenance purposes as well as research.

Two rather broad general divisions are recognized in the work of the Station. The one includes investigational work of an original nature of a character which satisfies the requirements of the Adams Act. This work is usually such that it covers a period of years, and of such nature that it seeks to discover underlying principles and truths which may have a bearing upon some phase of the science of agriculture. The studies to come in this general division must be exhaustive and results should be a distinct addition to the science of agriculture. All other work of a research nature, which may not necessarily be original, or of the highest type, which is carried on at the Experiment Station, is grouped in the second division. Many of the subjects of research are not designed to be exhaustive, but rather to answer many of the immediate questions which should be answered for the people of the State who are directly or indirectly interested in agriculture. Upon the other hand, investigations begun and classed in the second division many times develop to the point that they are placed in the first division.

At present the lines of investigation pursued include experiments in soils, crops and fruits; breeding of livestock; feeds and feeding; insect pests, economic insects; poultry and egg production and poultry-feeding; plant and animal parasites, plant and animal diseases, their control and eradication; butter, cheese and ice cream manufacture, etc.

The investigations are designed especially to further the progress of agriculture in Oklahoma, with special reference to the soil and climatic conditions.

This very wide range of investigational and experimental work is of itself an educational feature of the College. Students have opportunities to study methods of attacking problems, and many of them are employed in the laboratories and experimental plats, where they may study problems at first hand.

Each year an annual report is published giving a resume of the work accomplished the past year. Short articles are often included. These reports become a valuable history of the work and progress of the Station.

The results obtained in the various lines of experiment work are published in bulletins. In addition to the regular bulletins, giving

the results of work, a series of popular publications known as circulars are issued from time to time as conditions would seem to warrant to be used by the extension service in distributing valuable information to the farmers.

A mailing list is maintained which numbers at the present about 17,000 names, principally of farmers, in various parts of the State. Any citizen of the State interested in agriculture may have the bulletins and other publications from the Station sent free on application to the Director of the Experiment Station, Stillwater, Oklahoma.

Such portions of the College farm, which comprises 920 acres, as are needed for Experiment Station and research work, are set aside for this purpose; also such livestock as is needed for feeding experiments is utilized by the Station. All the scientific laboratories of the College are available for research work, and many of the scientific departments of the institution are interested in carrying on different projects under the supervision of the Experiment Station officers.

THE SCHOOL OF ENGINEERING

JOHN H. BRINGHURST, *Dean.*

In compliance with the provisions of the Morrill land grant, the teaching of engineering was begun at the Oklahoma Agricultural and Mechanical College by the establishmhent of a course in mechanical engineering. The first class was graduated in 1902. Later, courses in electrical, civil, architectural and chemical engineering were added in the order named. As far as practicable, in the development of courses, they have been kept closely related to the important industries of the State. With the growth of manufacturing, of the oil industry, the increased use of electrical power, the improvement of highways, of water supply systems, and increased interest in better buildings, the importance of having men with the proper training will be more fully recognized.

There are two large buildings on the campus devoted to the work of instruction in engineering. These are the Engineering Building and the Shop Building. The former was erected in 1912 at a cost of $75,000.00. It is three stories high, covers an area 160 by 80 feet, and is built of reinforced concrete and brick with stone trimmings. On the ground gloor are located the steam and hydraulic laboratories, the electrical laboratory, the laboratories for the testing of structural materials and road materials, storage batteries, room for surveying instruments, and office for the Dean. On the next floor are the physics laboratory and lecture-room, four other lecture-rooms for the different departments, rooms for photometry, physical apparatus, and offices for the heads of departments. On the top floor are the large drafting-rooms, classrooms and offices for several of the departments, and rooms for the storage of records.

The Shop Building is of stone and brick, and covers an area of 40 by 200 feet. For a depth of 80 feet it is two stories high, and the balance one story. It provides accommodations for the wood shop, machine-shop, forge-shop and foundry, and a toolroom.

The power plant of the College, with its steam boilers, steam engines and generators, is also used by the School of Engineering for

the purpose of making tests and familiarizing the student with the use of this class of machinery.

Mention should be made of the Engineering Society, an organization composed of students from the various engineering departments. They meet twice a month for the discussion of engineering subjects. These meetings tend to encourage a lively interest in practical engineering work, and give the students confidence in speaking before an audience.

PROFESSIONAL DEGREES IN ENGINEERING

For information in regard to professional degrees in engineering and the conditions under which they are granted to graduates of the School of Engineering, see Requirements for Graduation.

EXPERIMENTAL WORK IN ENGINEERING

The departments of the School of Engineering are prepared to carry on in the shops, laboratories and field, research work of value to the industries of Oklahoma. Those lines of investigation are undertaken which are important in the development of the States's resources, or in adding to the health and comfort of the people of the State.

Some of the subjects of particular interest to the people of Oklahoma are the following:

The properties of petroleum and its economical use in the industries.

The utilization of natural gas.

The examination and testing of the various structural and road materials to be found in Oklahoma.

The study of the problems of water supply and sewage disposal as related to the health of rural and urban communities.

Experimental work to determine the proper methods of irrigation and drainage to suit Oklahoma conditions.

COURSES IN THE SCHOOL OF ENGINEERING

The following outline of study represents the required and elective work in the School of Engineering. The courses are numbered, beginning with one hundred in the Freshman year; odd numbers, as 101, represent the first semester's work in the subject, and the even numbers, as 102, the second semester's work. Subjects of the Sophomore, Junior and Senior years are numbered accordingly, two hundred for Sophomore, three hundred for Junior and four hundred for Senior work. One hour of laboratory period is equivalent to one-third of a classroom period in estimating the number of hours per week to be taken.

The total requirements for graduation are 128 credits, exclusive of any credits given in physical education.

In the outline below, figures without parenthesis indicate hours of class-work, in parenthesis hours of laboratory work.

AGRICULTURAL ENGINEERING

(Under the joint control of the Dean of Agriculture and the Dean of Engineering. For a detailed statement of the curriculum, see School of Agriculture.)

ARCHITECTURE AND ARCHITECTUAL ENGINEERING

FRESHMAN YEAR

FIRST SEMESTER	Hrs.		Cr.
Eng. 101, College	3		3
Chem. 101, Inorganic	3	(3)	4
Math. 105, College Algebra	4		4
Arch. 111, Descriptive Geometry	2		2
Arch. 105, Elements of Architecture		(6)	2
Physical Education		(3)	
Military Science		(3)	1

SECOND SEMESTER	Hrs.		Cr.
Eng. 102, College	3		3
Chem. 102, Inorganic	3	(3)	4
Math. 108, Plane Trigonometry	3		3
Arch. 112, Descriptive Geometry	1	(3)	2
Arch. 104, Freehand Drawing		(3)	1
Arch. 106, Elements of Architecture	1	(6)	3
Shop 108, Carpentry		(3)	1
Physical Education		(3)	
Military Science		(3)	1

ARCHITECTURE

SOPHOMORE YEAR

FIRST SEMESTER	Hrs.		Cr.
Eng. 209, Technical Writing	2		2
Arch. 211, History of Architecture	2		2
Arch. 215, Freehand Drawing		(6)	2
Arch. 209, Architectural Design		(9)	3
Arch. 213, Building Construction	2		2
C. E. 201 Surveying		(3)	1
Physics, 201, Engineering	4	(3)	5
Military Science		(3)	1

SECOND SEMESTER	Hrs.		Cr.
Arch. 212, History of Architecture	2		2
Arch. 214, Building Construction	2		2
Arch. 216, Freehand Drawing		(6)	2
Arch. 210, Architectural Design		(9)	3
Physics 202, Engineering	4	(3)	5
Pub. Sp. 101, Essentials	2		2
Military Science		(3)	1

JUNIOR-ARCHITECTURE

FIRST SEMESTER	Hrs.		Cr.
Arch. 303, Applied Mechanics	2		2
Arch. 315, Freehand Drawing		(6)	2
Arch. 309, Working Drawings and Estimates	1	(9)	4
Arch. 311, Architectural Design		(12	4
E. E. 411, Wiring and Illumination	2		2

SECOND SEMESTER	Hrs.		Cr.
Arch. 304, Strength of Materials	3	(3)	4
Arch. 316 Freehand Drawing		(6)	2
Arch. 312, Architectural Design		(15)	5
E. E. 412, Dynamo-Electric Machinery	2		2
Electives			3

SENIOR—ARCHITECTURE

FIRST SEMESTER	Hrs.		Cr.
Arch. 401, History of Painting	1		1
Arch. 411, Freehand Drawing		(6)	2
Arch. 407, Architectural Design		(21)	7
Arch. 413, Reinforced Concrete and Structural Design	2	(6)	4
Electives			2

SECOND SEMESTER	Hrs.		Cr.
Arch. 414, History of Sculpture	1		1
Arch. 408, Architectural Design		(21)	7
Econ. 406, Laws of Contracts	2		2
M. E. 424, Heating and Ventilation	3		3

ARCHITECTURAL ENGINEERING

SOPHOMORE

FIRST SEMESTER	Hrs.		Cr.
Arch. 209, Architectural Design		(9)	3
Arch. 213, Building Construction	2		2
C. E. 201, Surveying		(3)	1
Math. 207, Analytical Geometry and Calculus			5
Physics 201, Engineering	4	(3)	5
Military Science		(3)	1

SECOND SEMESTER	Hrs.		Cr.
Arch. 214, Building Construction	2		2
Arch. 210, Architectural Design		(9)	3
Physics 202, Engineering	4	(3)	5
Pub. Sp. 101, Essentials of Public Speaking	2		2
Math. 208, Calculus	5		5
Military Science		(3)	1

JUNIOR YEAR

FIRST SEMESTER	Hrs.		Cr.	SECOND SEMESTER	Hrs.		Cr.
Arch. 211, History of Architecture	2		2	Arch. 212, History of Architecture	2		2
Arch. 215, Freehand Drawing		(6)	2	Arch. 208, Freehand Drawing		(6)	2
Arch. 309, Working Drawings and Estimates	1	(9)	4	Econ. 106, Laws of Contracts	2		2
Eng. 209, Technical Writing	2		2	C. E. 302, Mechanics of Materials	3		3
C. E. 301, Applied Mechanics	3		3	C. E. 308, Testing Laboratory		(3)	1
M. E. 311, Steam and Gas Engines	2		2	C. E. 310, Framed Structures	2	(6)	4
Electives			2	Electives			2

SENIOR YEAR

FIRST SEMESTER	Hrs.		Cr.	SECOND SEMESTER	Hrs.		Cr.
Arch. 311, Architectural Design		(12)	4	M. E. 424, Heating and Ventilation	3		3
E. E. 411, Wiring and Illumination	2		2	E. E. 412, Dynamo-Electric Machinery	2		2
C. E. 401, Structural Design		(6)	2	C. E. 402, Concrete Structures		(6)	2
C. E. 415, Reinforced Concrete	4		4	C. E. 407, Testing Laboratory		(3)	1
Electives			3	Arch. 310, Working Drawing		(9)	3

TWO-YEAR SPECIAL COURSE IN ARCHITECTURE

FIRST YEAR

FIRST SEMESTER	Hrs.		Cr.	SECOND SEMESTER	Hrs.		Cr.
Arch. 211, History of Architecture	2		2	Arch. 212, History of Architecture	2		2
Arch. 215, Freehand Drawing		(6)	2	Arch. 216, Freehand drawing		(6)	2
Arch. 111, Descriptive Geometry	2		2	Arch. 112, Descriptive Geometry	1	(3)	2
Arch. 311, Architectural Design		(12)	4	Arch. 312, Architectural Design		(15)	5
Electives	6		6	Electives	4		4

SECOND YEAR

FIRST SEMESTER	Hrs.		Cr.	SECOND SEMESTER	Hrs.		Cr.
Arch. 315, Freehand Drawing		(6)	2	Arch. 316, Freehand Drawing		(6)	2
Arch. 401, History of Painting	1		1	Arch. 408, Architectural Design		(21)	7
Arch. 407, Architectural Design		(21)	7	Arch. 414, History of Sculpture	1		1
Electives	6		6	Electives	5		5

CHEMICAL, CIVIL, ELECTRICAL AND MECHANICAL ENGINEERING

FRESHMAN YEAR

FIRST SEMESTER	Hrs.		Cr.	SECOND SEMESTER	Hrs.		Cr.
Eng. 101, College	3		3	Eng. 102, College	3		3
Chem. 101, Inorganic	3	(3)	4	Chem. 102, Inorganic	3	(3)	4
Math. 105, College Algebra	4		4	Math. 108, Plane Trigometry	3		3
M. E. 101, Engineering Drawing		(6)	2	M. E. 102, Engineering Drawing		(3)	1
Shop 101, Woodwork		(3)	1	M. E. 104, Descriptive Geometry	3	(3)	4
Pub. Sp. 101, Essentials	2		2	Shop 104, Woodwork		(3)	1
Physical Education		(3)		Physical Education		(3)	
Military Science		(3)	1	Military Science		(3)	1

CHEMICAL ENGINEERING

SOPHOMORE YEAR

FIRST SEMESTER	Hrs.		Cr.	SECOND SEMESTER	Hrs.		Cr.
Math. 207, Analytics and Calculus	5		5	Math. 208, Calculus	5		5
Physics 201, Engineering	4	(3)	5	Physics 202, Engineering	4	(3)	5
Chem. 201, Qualitative Analysis	2	(6)	4	Chem. 210, Quantitative Analysis	2	(6)	4
Modern Language	3		3	Modern Language	3		3
Military Science		(3)	1	Military Science		(3)	1

JUNIOR YEAR

FIRST SEMESTER	Hrs.		Cr.	SECOND SEMESTER	Hrs.		Cr.
Chem. 311, Advanced Organic	3	(4)	4⅓	Chem. 312, Advanced Organic	3	(4)	4⅓
Chem. 321, Geology	2		2	Bact. 310, General	3	(4)	4⅓
M. E. 305, Heat-Power Engineering	4		4	M. E. 308, Mechanical Laboratory		(3)	1
M. E. 307, Mechanical Laboratory		(3)	1	Electives			4
Electives			4				

JUNIOR ELECTIVES

FIRST SEMESTER	Hrs.		Cr.
Chem. 327. Petroleum Technology	3	(6)	5
M. E. 301. Materials of Machines	2		2
Modern Language	3		3
R. O. T. C.	3		3

SECOND SEMESTER	Hrs.		Cr.
Chem. 304. Advanced Quantitative	2	(6)	4
Chem. 322. Mineralogy	1	(4)	2⅓
M. E. 306. Thermodynamics	3		3
Modern Language	3		3
R. O. T. C.	3		3

SENIOR YEAR

FIRST SEMESTER	Hrs.		Cr.
Chem. 405. Industrial Chemistry	3	(9)	6
Chem. 423. Seminar	1		1
E. E. 413. Direct Current Machines	3	(3)	4
Electives			4

SECOND SEMESTER	Hrs.		Cr.
Chem. 406. Industrial Chemistry	3	(9)	6
Chem. 424. Seminar	1		1
E. E. 414. Alternating Current Machines	3	(3)	4
Electives	3		3

SENIOR ELECTIVES

FIRST SEMESTER	Hrs.		Cr.
Chem. 411. Quantitative Analysis	1	(6)	3
M. E. 403. Gas-Power Engineering	3		3
Modern Language	3		3
R. O. T. C.	3		3

SECOND SEMESTER	Hrs.		Cr.
Chem. 412. Quantitative Analysis	1	(6)	3
M. E. 420. Refrigeration	3		3
Econ. 406. Laws of Contracts	2		2
Modern Language	3		3
R. O. T. C.	3		3

CIVIL ENGINEERING

SOPHOMORE YEAR

FIRST SEMESTER	Hrs.		Cr.
Math. 207. Analytics and Calulus	5		5
Math. 205. Spherical Trigonometry	1		1
Physics 201. Engineering	4	(3)	5
Eng. 209. Technical Writing	2		2
C. E. 203 Surveying	2	(4)	3⅓
Military Science		(3)	1

SECOND SEMESTER	Hrs.		Cr.
Math. 208. Calculus	5		5
Physics 202. Engineering	4	(3)	5
C. E. 204. Railway Surveying	2	(6)	4
Shop 202. Forge		(3)	1
Military Science		(3)	1

JUNIOR YEAR

FIRST SEMESTER	Hrs.		Cr.
C. E. 301. Applied Mechanics	3		3
C. E. 303. Roads and Pavements	3		3
C. E. 309. Higher Surveying		(6)	2
M. E. 311. Steam and Gas Engines	2		2
Chem. 321 Geology	2		2
Electives			4

SECOND SEMESTER	Hrs.		Cr.
C. E. 302. Mechanics of Materials	3		3
C. E. 301. Framed Structures	2	(6)	4
C. E. 308. Testing Laboratory		(3)	1
C. E. 312. Hydraulics	2		2
C. E. 316. Highway Engineering	3		3
Electives			2

SENIOR YEAR

FIRST SEMESTER	Hrs.		Cr.
C. E. 401. Structural Design		(6)	2
C. E. 415. Reinforced Concrete Theory	4		4
C. E. 413. Water Supply and Irrigation	3	(4)	4⅓
Econ. 201. Principles of Economics	3		3
Electives			2

SECOND SEMESTER	Hrs.		Cr.
C. E. 402. Concrete Structures		(6)	2
C. E. 404. Sewerage and Drainage	2	(6)	4
Bact. 402. Sanitary Science	3		3
Econ. 406. Laws of Contracts	2		2
Econ. 417. City Economics	2		2
Electives			2

ELECTRICAL ENGINEERING

SOPHOMORE YEAR

FIRST SEMESTER	Hrs.		Cr.
Math. 207. Analytics and Calculus	5		5
Physics 201. Engineering	4	(3)	5
Eng. 209. Technical Writing	2		2
M. E. 201. Empirical Machine Design		(6)	2
C. E. 201. Elements of Surveying		(3)	1
Shop 203. Foundry		(3)	1
Military Science		(3)	1

SECOND SEMESTER	Hrs.		Cr.
Math. 208. Calculus	5		5
Physics 202. Engineering	4	(3)	5
M. E. 204. Kinematics	2	(6)	4
Shop 202. Forge		(3)	1
Military Science		(3)	1

JUNIOR YEAR

FIRST SEMESTER

	Hrs.		Cr.
C. E. 301, Applied Mechanics	3		3
Physics 301, Electrical Measurments	2	(3)	3
E. E. 303, Direct Current Machines	3	(3)	4
M. E. 305, Heat-Power Engineering	4		4
M. E. 307, Mechanical Laboratory		(3)	1
Shop 301, Machine-shop		(4)	1⅓

SECOND SEMESTER

	Hrs.		Cr.
C. E. 302, Mechanics of Materials	3		3
C. E. 312, Hydraulics	2		2
C. E. 308, Testing Laboratory		(3)	1
Physics 302, Electrical Measurements	1	(3)	2
E. E. 304, Direct Current Machines	3	(4)	4⅓
M. E. 308, Mechanical Laboratory		(3)	1
Shop 302, Machine-shop		(4)	1⅓
Electives	2		2

SENIOR YEAR

FIRST SEMESTER

	Hrs.		Cr.
E. E. 401, Alternating Current Machines	4	(4)	5⅓
E. E. 403, Telephony	3	(3)	4
E. E. 405, Electrical Machine Design	2	(3)	3
Econ. 201, Principles of Economics	3		3

SECOND SEMESTER

	Hrs.		Cr.
E. E. 402, Alternating Current Machines	4	(6)	6
E. E. 404, Electrical Power Transmission	2		2
M. E. 412, Steam-Power Plants	2	(3)	3
Econ. 406, Laws of Contracts	2		2

MECHANICAL ENGINEERING

SOPHOMORE YEAR

FIRST SEMESTER

	Hrs.		Cr.
Math. 207, Analytics and Calculus	5		5
Physics 201, Engineering	4	(3)	5
Eng. 209, Technical Writing	2		2
M. E. 201, Empirical Machine Design		(6)	2
Shop 203, Foundry		(3)	1
C. E. 201, Surveying		(3)	1
Military Science		(3)	1

SECOND SEMESTER

	Hrs.		Cr.
Math. 208, Calculus	5		5
Physics 202, Engineering	4	(3)	5
M. E. 204, Kinematics	2	(6)	4
Shop 202, Forge		(3)	1
Military Science		(3)	1

JUNIOR YEAR

FIRST SEMESTER

	Hrs.		Cr.
C. E. 301, Applied Mechanics	3		3
M. E. 301, Materials of Machines	2		2
M. E. 303, Machine Design	3		3
M. E. 305, Heat-Power Engineering	4		4
M. E. 307, Mechanical Laboratory		(3)	1
Shop 301, Machine-shop		(4)	1⅓

SECOND SEMESTER

	Hrs.		Cr.
C. E. 302, Mechanics of Materials	3		3
C. E. 308, Testing Laboratory		(3)	1
C. E. 312, Hydraulics	2		2
M. E. 304, Machine Drafting		(6)	2
M. E. 306, Thermodynamics	3		3
M. E. 308, Mechanical Laboratory		(3)	1
Shop 302, Machine-shop		(4)	1⅓
Electives	2		2

SENIOR YEAR

FIRST SEMESTER

	Hrs.		Cr.
M. E. 401, Steam Engine Design	2	(6)	4
M. E. 405, Mec. Laboratory		(3)	1
E. E. 413, Direct Current Machinery	3	(3)	4
Econ. 201, Principles of Economics	3		3
Shop 401, Machine-shop		(3)	1
Electives below	3		3
ELECTIVES			
M. E. 403, Gas Power, Compressed Air	3		3
M. E. 421, Hydraulic Machinery	3		3
R. O. T. C.	3		3

SECOND SEMESTER

	Hrs.		Cr.
M. E. 408, Mech. Laboratory		(3)	1
M. E. 412, Steam Power Plant Design	2	(3)	3
E. E. 414, Alternating Current Machinery	3	(3)	4
M. E. 420, Refrigeration	3		3
Econ. 406, Laws of Contracts	2		2
Electives below	3		3
ELECTIVES			
M. E. 410, Pumping Machinery	3		3
M. E. 414, Works Management	3		3
M. E. 416, Thesis	3		3
M. E. 418, Advanced Design	1 to 4		
M. E. 424, Heating and Ventilation	3		3
R. O. T. C.	3		3

DEPARTMENT OF ARCHITECTURE

F. W. REDLICH, *Professor*
J. J. PATTERSON, *Instructor*
P. A. WILBER, *Instructor*

The courses offered by the department divide themselves into two groups. Both are full professional courses extending over four years. Course I is open to all students studying architecture; Course II for those studying architectural engineering.

COURSES I AND II

The schedules of Courses I and II conform to the standard minima of the Associated Collegiate Schools of Architecture.

It is the purpose of the department to offer the necessary training in design, construction and the allied subjects that will eventually fit the student for the practice of architecture, and will also enable him upon graduation to be of immediate value as a draftsman. With this end in view, the course of study combines with the strictly professional work the essentials of a liberal education, aiming to give the student as broad a foundation as possible for his future work. The number and scope of the subjects to be covered during the course make it necessary that the student start his architectural work at the beginning of the Freshman year.

The two courses in architecture and architectural engineering run very nearly parallel for the first two years in order to give the student an opportunity for careful investigation before making a choice. At the beginning of the third year the line of demarcation between the professional work of the two options becomes more marked, and in the fourth year it is very sharply defined, but the general subject common to both options, which continues through the four years, emphasizes the close relationship between the two courses.

The work in design is started after the courses in descriptive geometry, shades and shadows and perspective, and the elements of architecture have given the student a good foundation. During the Sophomore year, problems in design are taken, involving the use of the orders and other elements in order to train the student in sense of correct form and proportion.

In the Junior and Senior years, plan problems are given, and the entire composition of buildings is studied. A series of lectures on the elements and theory of architecture accompanies this work,

and frequent sketch problems are given in order to develop rapidity of thought and presentation.

Students in architecture devote 25% of the entire course to design; for those taking architectural engineering, design is decreased to 15%, but 34% of their course consists of engineering studies and advanced construction. Throughout all years of the course in architecture runs some form of freehand drawing, the basic nature of which cannot be overestimated. The history of architecture possesses a cultural as well as a technical value, for its prevailing styles reflect great movements of civilization among races—their migrations, conquests, commercial, social and religious changes. The study of history of architecture commences in the Sophomore year, and with the attendant subjects of ornament, painting and sculpture, continues through the balance of the course in architecture. Students in architectural engineering take less freehand drawing and history than those in architecture.

Of foreign languages, French is the most useful to the architect, and should, therefore, be preferably offered for entrance. The technical terms employed in architecture are largely French, and where the entrance requirement has been met by the offer of another language, it is desirable that the student take some French after matriculation.

During the summer vacation architectural students are expected to spend as large a part of their time as possible in the offices of practicing architects, and it has been found that those men who regularly follow this plan make the greatest advancement in college work.

The equipment of the architectural lecture-room includes a Bausch & Lomb "Universal Balopticon" for the projection of slides and plates, and a carefully selected collection of lantern slides. The drawings, books and journals in the architectural library are freely accessible to students during working hours, but must not be removed from the departmental reading-room without special permission, which, however, is readily given for cause. The drafting-rooms are provided with "Economy" drawing tables of a type adopted as standard by the department; these have ample drawer capacity for students' work and tools; a top 39 by 72 inches in size for perspectives, and loose, inclined boards 32 by 44 inches for general use.

The studio for freehand drawing is well equipped with practical objects, still life models, simple plaster casts, casts of architectural features and sculpture.

In addition to the full four-year courses, a special course of two years' duration is also offered to qualify men who have had sufficient experience in the office of a practicing architect to enable them to carry on the required work. No entrance examinations for this work will be required. Upon the completion of the required work a certificate of proficiency is given.

LANDSCAPE ARCHITECTURE

For the benefit of those desiring special training in this line of work an elective course is offered, consisting of six hours a week of drafting. This is open to students of any department, and will be adapted to their individual requirements.

SUBJECTS

104 FREEHAND DRAWING. Drafting 3 hours. Credit 1.
Required of Freshman in Architecture and A. E., second semester.
Freehand drawing from objects and simple casts in charcoal.

105 ELEMENTS OF ARCHITECTURE. Drafting 6 hours. Credit 2.
Required of Freshman in Architecture and A. E., first semester.
The classic orders of architecture and elementary studies in composition with drawings rendered in india ink.

106 ELEMENTS OF ARCHITECTURE. Class 1 hour. Drafting 6 hours Credit 3.
Prerequisite: Arch. 105.
Required of Freshman in Architecture and A. E., first semester.
Continuation of the orders and elementary studies in composition.

109 ARCHITECTURAL DRAFTING. Drafting 6 hours.
For students not enrolled in Architecture, and especially adapted for students taking Home Economics.

111 DESCRIPTIVE GEOMETRY. Class 2 hours. Credit 2.
Required of Freshman in Architecture and A. E., first semester.
Fundamental problems involving points, lines, planes and the elements of shades and shadows.

112 DESCRIPTIVE GEOMETRY. Class 1 hour, drafting 3 hours. Credit 3.
Prerequisite: Arch. 111.
Required of Freshman in Architecture and A. E., second semester.
Intersections of planes and solids. The development of surfaces, and perspective drawing.

209 ARCHITECTURAL DESIGN. Drafting 9 hours. Credit 3.
Prerequisite: Arch. 103.
Required of Sophomores in Architecture and A. E., first semester.

A study of architectural composition with library research. Problems in design, composition, planning, motives, details and rendering. Lectures and criticisms.

210 ARCHITECTURAL DESIGN. Drafting 9 hours. Credit 3.

Prerequisite: Arch 209.

Required of Sophomores in Architecture and A. E., second semester.

Continuation of problems in design, composition and planning with researches, lectures and criticisms.

211 HISTORY OF ARCHITECTURE. Class 2 hours. Credit 2.

Prerequisite: General History.

Required of Sophomores in Architecture and Juniors in A. E., first semester.

Origin and development of historical styles of architecture from the earliest times up to the Gothic period. Typical examples are studied in detail. and for this porpose the lantern is in constant use. Stress is laid on the evolution of styles from changes in structural form, political and religious conditions, and national character.

212 HISTORY OF ARCHITECTURE. Class 2 hours. Credit 2.

Prerequisite: Arch. 211.

Required of Sophomores in Architecture and Juniors in A. E., second semester.

Continuation of the development of historical styles of architecture, including Gothic, Rennaissance and modern styles.

213 BUILDING CONSTRUCTION. Class 2 hours. Credit 2.

Repuired of Sophomores in Architecture and A. E., first semester.

Building materials and construction. Foundations, footings and walls; stone and brick masonry; concrete, terra cotta and plastering. Fire-resisting construction. Classwork supplemented by drawing and inspection of structures. Carpentry work; properties and uses of various woods; methods of framing; mill construction; interior finish; hardware. Technical features of specifications and realtion of architect, owner, and contractor. Plumbing and Drainage.

214 BUILDING CONSTRUCTION. Class 2 hours. Credit 2.

Prerequisite: Arch. 213.

Required of Sophomores in Architecture and A. E., second semester.

Continuation of the course 213.

215 FREEHAND DRAWING. Drafting 6 hours. Credit 2.

Prerequisite: Arch. 104.

Required of Sophomores in Architecture and Juniors in A. E. first semester.

From Antique and Architecture Ornaments in charcoal. Water color painting from still life.

216 FREEHAND DRAWING. Drafting 6 hours. Credit 2.

Prerequisite: Arch. 215.

Required of Sophomores in Architecture and Juniors in A. E. first semester.

Work in charcoal and water color and rendering of Architectural subjects. Out of door sketches.

303 APPLIED MECHANICS. Class 2 hours. Credit 2.

Prerequisite: Physics 202.

Required of Juniors in Architecture, first semester.

A course in kinematics, kinetics and statics for architectural students and others who have not had the calculus.

304 STRENGTH OF MATERIALS. Class 3 hours, drafting 3 hours. Credit 4

Prerequisite: Arch. 303.

Required of Juniors in Architecture, second semester.

Continuation of the course in mechanics for students who have not taken the calculus. Graphical methods of determining the elastic curve of beans, centroids and moments of inertia of areas; beams and columns; properties and tests of building materials. Graphic analysis, elements of design.

309 WORKING DRAWINGS AND ESTIMATES. Class 1 hours, drafting 9 hours. Credit 4.

Prerequisite: Arch. 210.

Required of Juniors in Architecture and A. E., first semester.

Under such limitations as a client would be likely to impose, the student prepares working drawings, specifications, typical details and estimates for a frame and brick structure.

310 ADVANCED WORKING DRAWINGS. Drafting 9 hours. Credit 3.

Prerequisite: Arch. 309.

Continuation of 309, Working drawings of public building, office buildings, etc.

311 ARCHITECTURAL DESIGN. Drafting 12 hours. Credit 4.

Prequisite: Arch. 210.

Required of Juniors in Architecture and Seniors in A. E., first semester.

Advanced problems in design, composition and planning, with research, lectures and criticisms.

312 ARCHITECTURAL DESIGN. Drafting 15 hours. Credit 5.

Prequisite: Arch. 311.

Required of Juniors in Architecture, second semester.

Continuation of advanced problems in design, composition and planning, with research, lectures and criticisms.

315 FREEHAND DRAWING. Drafting 6 hours. Credit 2.

Prerequisite: Arch. 216.

Required of Juniors in Architecture, first semester.

Drawing from Architectural Casts and from Antique in water colors and oil. Architectural sketching in pen and ink.

316 FREEHAND DRAWING. Drafting 6 hours. Credit 2.

Prerequisite: Arch. 315.

Required of Juniors in Architecture, second semester.

Work in water colors and oils from casts of antique sculpture.

401 HISTORY OF PAINTING. Class 1 hour. Credit 1.

Required of Seniors in Architecture, first semester.

Illustrated lectures on the history of painting, with special reference to architectural design.

407 ARCHITECTURAL DESIGN. Drafting 21 hours. Credit 7.

Prequisite: Arch. 312.

Required of Seniors in Architecture, first semester.

Extended problems in design, composition and planning, with research and criticisms.

408 ARCHITECTURAL DESIGN. Drafting 21 hours. Credit 7.

Prequisite: Arch. 407.

Required of Seniors in Architecture, second semester.

Continuation of Architecture 407. During the latter half of the semester a single major problem is studied and worked up in detail as a thesis problem.

410 INTERIOR DESIGN AND DECORATION. Drafting 9 hours. Credit 3.

Elective for Seniors in Architecture.

Simple design problems for woodwork, including mantels, bookcases, cabinets, doors and windows, staircases, halls, drawing-rooms. Use of materials. Wall decorations in color.

411 FREEHAND DRAWING. Drawing 6 hours. Credit 2.

Prerequisite: Arch. 316.

Required of Seniors in Architecture, first semester.

Figure sketching from the live model. Method of execution is entirely individual, whether in color or in black and white.

413 REINFORCED CONCRETE AND STRUCTURAL DESIGN. Class 2 hours. Drafting 6 hours. Credit 4.

Prerequisite: Arch. 304.

Required of Seniors in Architecture, first semester.

Theory and practice in the design of reinforced concrete and steel frame construction, in regard to modern fire-proof buildings.

414 HISTORY OF SCULPTURE. Class 1 hour. Credit 1.

Required of Seniors in Architecture, second semester.

Illustrated lectures on the history of sculpture, with special reference to architectural design.

417 LANDSCAPE ARCHITECTURE. Drafting 6 hours. Credit 2.

This course is elective to students of all departments, and can be arranged to suit their special needs.

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DEPARTMENT OF CHEMICAL ENGINEERING

ROBERT DuBOIS. *Assistant Professor*
ALDO M. LIVINGOOD. *Assistant Professor*

This course in chemical engineering has been arranged to meet the needs of an increasing number of students who wish to prepare themselves for engineering work that depends wholly or in part on chemical or metallurgical processes. The purpose of the course is to provide the young engineer with a broad, well founded knowledge of both chemistry and mechanical engineering so that he may be prepared to take up the work of assisting in the design and erection of machinery used in such manufacturing plants as those indicated. But it is the aim of the work also to develop in him the ability to see the bearing of a proposition from the combined view-

point of the chemist and the engineer, which is essential if one is to appreciate the fact that commercial success in manufacturing depends on the application of scientific principles.

In addition to a knowledge of the principles on which the design, construction annd maintenance of a manufacturing plant rests. there must be control of the raw material used and the products turned out. No efficient control can be had except through chemical analyses; on this account the study of analytical chemistry is specially emphasized. The courses in chemistry and in mechanical engineering are so arranged that the work of the first two years is fundamental in character and furnishes a suitable foundation for one who would become either a chemist or an engineer; while that of the last two years, though it requires all the essential work for either, allows the student some choice of subjects, depending on the interests he has developed up to that time.

The equipment of both the chemical laboratory and the Department of Mechanical Engineering, described elsewhere in this catalog, is available for the work of this course.

Regular work is supplemented from time to time by the analyses of oil and similar products sent in from different parts of Oklahoma and elsewhere.

For the outline of the course, see "Courses in the School of Engineering".

For a description of the courses in chemistry, see the Department of Chemistry.

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DEPARTMENT OF CIVIL ENGINEERING

JOHN H. BRINGHURST, *Professor*
H. L. HENDERSON, *Instructon*

The work of the civil engineer includes highway and railroad location and construction, municipal improvement, hydraulic, sanitary and structural engineering. The purpose of the instruction in this department is to give a training sufficiently broad and comprehensive to fit a student to enter any line of civil engineering practice.

Highway construction is of increased importance, and this fact is recognized by the emphasis placed upon that part of the training which prepares men for this work.

The problems of water supply and sewage disposal are being

brought to the attention of almost every community in Oklahoma. The training of city managers who have to deal with these and other municipal problems is identical with that of a well equipped civil engineer.

This department is well supplied with the instruments needed for a thorough course in surveying, including surveys for highways, railroads, drainage and irrigation projects, and geodetic work.

In the course in bridge and structural design, careful study is made of the theory of stresses, and practice given in the actual designing of wood, steel and concrete structures.

The testing laboratory contains all of the machines usually found in a well-equipped laboratory for the testing of structural materials. Opportunity is offered for laboratory study of cement and concrete. The machines for the testing of road materials conform to the standards of the United States Office of Public Roads.

Class instruction in hydraulics is supplemented by work in the hydraulic laboratory. Measurements of flow are made for weirs, nozzles, pipes and flumes. Tests of a Pelton wheel, of a centrifugal pump, and of water meters, and field measurements by means of a current meter are also made. A thorough training in hydraulics is necessary to deal with problems in water supply, irrigation, and hydraulic development.

In addition to the work in mathematics, physics and chemistry required of all engineering students, certain courses adapted to the needs of civil engineers are required. Spherical trigonometry is given in the Sophomore year, and an opportunity to elect least squares in the Junior and Senior years. Geology and mineralogy are required subjects. They have a direct bearing upon the study of road and building materials. A course in sanitary biology is offered by the Department of Bacteriology and is of special importance for a clear understanding of sewage disposal and water supply. A course in steam and gas engineering and one in dynamo-electric machinery, given by other departments, are especially adapted to the needs of civil engineering students.

The drafting-room for this department is well-equipped and well lighted. There is a good collection of working drawings and designs, representing standard practice in different fields of engineering, which are used for reference in several of the courses.

SUBJECTS

201 ELEMENTS OF SURVEYING. Fieldwork 3 hours. Credit 1.

Required of Sophomores in E. E., M. E., A. E., Architects and Agricultural Engineers, first semester.

Care and use of transit and level. Exercises in traversing and leveling; making of profiles and plotting field notes. The course adapted to the needs of those who require an elementary knowledge of surveying but do not expect to complete a course in Civil Engineering.

Text: "Surveying Manual," Pence and Ketchum.

203 SURVEYING. Class 2 hours, fieldwork 4 hours. Credit 3½.

Prerequisite: Math. 108.

Required of Sophomores in C. E., first semester.

Care, use and adjustment of transit, level, plane table and compass. Exercises embracing the usual problems in elementary surveying, including traversing, profile leveling, topographical measurements and mapping.

Text: "Principles and Practice of Surveying," Breed & Hosmer. Vol. I.

204 RAILWAY SURVEYING. Class 2 hours, fieldwork 6 hours. Credit 4.

Prerequisite: C. E. 203.

Required of Sophomores in C. E., second semester.

Lectures and class work in the economic theory of railway location; theory of simple circular curves, compound curves, trasition curves; problems in railway yard construction, tournouts, frogs and switches. Exercises in the field in preliminary location and construction of a short railway line including staking curves, cross-sectioning and computing earthwork.

Text: "Railroad Curves and Earthwork," Allen.

301 APPLIED MECHANICS. Class 3 hours. Credit 3.

Prerequisite: Math. 208.

Required of Juniors in C. E., M. E., E. E., A. E. and Agricultural Engineering, first semester.

Principles of statics, kinetics and dynamics.

Text: "Applied Mechanics", Poorman.

302 MECHANICS OF MATERIALS. Class 3 hours. Credit 3.

Prerequisite: C. E., 301.

Required of Juniors in C. E., E. E., M. E., A. E., and Agricultural Engineering, second semester.

Properties of materials: theory of beams, columns, tortion, internal stress and change of form.

Text: "Strength of Materials," Boyd.

303 ROADS AND PAVEMENTS. Class 3 hours. Credit 3.

Required of Juniors in C. E. and seniors in Agricultural Engineering, first semester.

Methods of construction and maintenance of various types of roads and pavements. Road machinery and road organization.

Text: "Construction of Roads and Pavements." Agg.

307 TOPOGRAPHICAL DRAWING. Drawing 3 hours. Credit 1.

Prerequisite: C. E. 203.

Conventional symbols, lettering, preparation of profiles and maps.

308 TESTING LABORATORY. Laboratory 3 hours. Credit 1.

Prerequisite: C. E. 301.

Required of Juniors in C. E., E. E., M. E., and A. E., second semester.

Testing Highway and Structural Materials.

309 HIGHER SURVEYING. Fieldwork 6 hours. Credit 2.

Prerequisite: Math. 205 and C. E. 203.

Required of Juniors in C. E., first semester.

Geodetic surveying. Fieldwork and computations for triangulation system. Exercises in determination of azimuth, latitude, longitude and time.

Text: "Principles and Practice of Surveying," Vol. II, Breed & Hosmer.

310 FRAMED STRUCTURES. Class 2 hours, drawing 6 hours. Credit 4.

Prerequisite: C. E. 301.

Required of Juniors in C. E., and A. E., second semester.

Problems in graphic statics, stresses in framed structures due to static and moving loads; influence diagrams.

Text: "Modern Framed Structures," Vol. I .Part. I., Johnston, Bryan and Turneaure.

312 HYDRAULICS. Class 2 hours. Credit 2.

Prerequisite: Math. 208.

Required of Juniors in C. E., E. E., M. E., and Agricultural Engineering, second semester.

Fundamental principles of hydrostatics, hydrodynamics and their application to problems in engineering.

Text: "Hydraulics," Daugherty.

316 HIGHWAY ENGINEERING. Class 3 hours. Credit 3.

Prerequisite: C. E. 303.

Required of Junior C. E. students, second semester.

A study of the problems of county roads and city streets; methods of construction and maintenance and the theory of the design of roads and road structures.

401 STRUCTURAL DESIGN. Drawing 6 hours. Credit 2.

Prerequisite: C. E. 310 and 302.

Required of Seniors C. E., and A. E., First semester.

Design and working drawings of structures of wood and steel.

402 CONCRETE STRUCTURES. Drawing 6 hours. Credit 2.

Required of Seniors in C. E. and A. E. Design of structures in reinforced concrete. For C. E. students, emphasis is placed on the design of highway bridges and culverts; for architectural students, emphasis is placed on reinforced concrete design as applied to buildings.

404 SEWERAGE AND DRAINAGE. Class 2 hours, laboratory 6 hours. Credit 4.

Prerequisite: C. E. 312. second semester.

Required of Seniors in C. E.

Design and construction of sewerage systems; modern methods of sewerage disposal; methods of drainage.

407 TESTING LABORATORY. Laboratory 3 hours. Credit 1.

Prerequisite: C. E. 302.

Laboratory examinations of the various materials of construction.

408 THESIS. Laboratory 3 hours. Credit 1.

Original investigation of some engineering subject.

413 WATER SUPPLY AND IRRIGATION. Class 3 hours, laboratory 4 hours. Credit 4½.

Prerequisite: C. E. 312.

Required of seniors in C. E., first semester.

Source of water supply; methods of purification; design of water work system. Engineering problems in the design of irrigation projects; capacity of canals; methods of irrigating; irrigation laws.

415 REINFORCED CONCRETE. Class 4 hours. Credit 4.

Prerequisite: C. E. 302.

Required of seniors in C. E. and A. E., first semester.

Theory of reinforced concrete design including slabs, beams, columns, footings, retaining walls.

Text: "Reinforced Concrete Construction," Hool.

416 IRRIGATION AND DRAINAGE. Class 2 hours, laboratory 3 hours. Credit 3.

A practical course, dealing with the location and construction of drainage and irrigation ditches, the distribution of water, subsurface and spray systems. The cause and prevention of alhali. Pumping and storage.

DEPARTMENT OF ELECTRICAL ENGINEERING

WILLAM CARL LANE, *Professor*
J. BRYON KIBLER, *Instructor*

The course in electrical engineering is designed to give the student a thorough training in the fundamental principles of electricity and in their application to the problems of the engineer. The successful electrical engineer must have a broad general engineering training in addition to his training in electricity; hence, the student is required to take a number of subjects in the other departments of the School of Engineering. These include applied mechanics, heat-power engineering, hydraulics, strength of materials, and several other of the allied engineering branches.

The first two years of the course are devoted to the fundamental subjects. During this period the student receives a careful training in English, mathematics, chemistry, physics, drawing, surveying and shop practice.

The electrical engineering work proper begins in the Junior year. The principles of electrical engineering, direct current machinery, wiring and illumination are studied in detail. All courses include laboratory work of a practical nature. The Senior year's work includes a detailed study of alternating current machinery, electric power plants, electric power transmission and telephony. Laboratory practice in alternating currents includes the testing of generators, motors, synchronous converters, transformers, rectifiers and meters. Care is taken to coordinate all work of the classroom with the work of the laboratory.

The dynamo laboratory, located on the first floor of the Engineering Building, is equipped with modern direct and alternating current generators and motors, synchronous converters, transformers, rectifiers, arc lamps, starting devices and switchboards. An ample supply of voltmeters, ammeters, wattmeters, tachometers and other necessary measuring instruments is provided. The laboratory equipment is representative of modern practice. No machines are wired up permanently. The students of each class are required to wire up the machines and adjust them for best operation before performing an experiment. At the close of a test, all wires are disconnected.

The battery-room and the calibrating laboratory are adjacent to the dynamo laboratory. The former contains a 90-cell storage battery for supplying energy for calibrating purposes, a battery for operating the College bell system, and other experimental batteries. The latter is equipped with a Leeds-Northrup potentiometer and standard shunts, a standard Weston voltmeter, a Weston indicating wattmeter and the other necessary auxiliary apparatus for calibrating both laboratory and commercial instruments.

Modern telephone apparatus is provided for use in connection with the course in telephony. Switch boards representation of every day practice enable the student to make a detailed study of Commercial apparatus. A darkroom is equipped with a Leeds-Northrup photometer of the latest type, and is devoted exclusively to photometric work. Lamps and shades of many types are studied in detail.

SUBJECTS.

303 DIRECT CURRENT MACHINES. Class 3 hours, laboratory 3 hours. Credit 4.

Prerequisite: Physics 202; Math. 208.
Requried of Juniors in E. E., first semester.
A study of direct current machinery.
Text: "Elements of Electrical Engineering," Franklin and Esty. (Vol I.)

304 DIRECT CURRENT MACHINES. Class 3 hours, laboratory 4 hours. Credit 4½.

Prerequisite: E. E. 303.
Required of Juniors in E. E., second semester.
A continuation of E. E. 303.
Text: "Elements of Electrical Engineering," Franklin and Esty. (Vol I.)

401 ALTERNATING CURRENT MACHINES. Class 4 hours, laboratory 4 hours. Credit 5½.

Required of Seniors in E. E., first semester.
Prerequisite: E. E. 304.
A study of the fundamentals of alternating current and their application to alternators, transmission lines, synchronous motors and conversion apparatus.
Text: "Principles of Electrical Engineering," Franklin and Esty, (Vol. II.)

402 ALTERNATING CURRENT MACHINES. Class 4 hours, laboratory 6 hours. Credit 6.

Prerequisite: C. E. 401.
Required of Seniors in E. E., second semester.
A continuation of E. E. 401. Study of transformers and alternating current motors.
Text: "Principles of Electrical Engineering," Franklin and Esty, (Vol. II.)

403 TELEPHONY. Class 3 hours, laboratory 3 hours. Credit 4.

Prerequisite: Physics 301, 302.
Required of Seniors in E. E., first semester.
Text: "American Telephone Practice," Miller.

404 ELECTRIC POWER TRANSMISSION. Class 2 hours. Credit 2.

Prerequisite: E. E. 401.
Required of Seniors in E. E., second semester.
Includes generation, transmission, distribution and utilization of power by electrical process.
Text: "Elements of Electrical Transmission," Ferguson.

405 ELECTRICAL MACHINE DESIGN. Class 2 hours, designing and drafting 3 hours. Credit 3.

Prerequisite: E. E. 304.
Required of Seniors in E. E., first semester.
Theory and design of a dynamo.
Text: "Electrical Machine Design," Gray.

411 WIRING AND ILLUMINATION. Class 2 hours. Credit 2.

Prerequisite: Physics 202.
Required of Junior Architects and Senior A. E., first semester.
Theory and practice in the design of the lighting and wiring of biuldings, and of the wiring of electrical apparatus in general.

412 DYNAMO-ELECTRIC MACHINERY. Class 2 hours. Credit 2.

Prerequisite: Physics 202; Math. 208.
Required of Junior Architects and Senior A. E., second semester.

413 DIRECT CURRENT MACHINERY. Class 3 hours, laboratory 3 hours. Credit 4.

Prerequisite: Physics 202; Math. 208.
Required of Seniors in Ch. E., and M. E., first semester.
A study of direct current machinery.
Text: "Principles and Practice of Electrical Engineering," Gray.

414 ALTERNATING CURRENT MACHINERY. Class 3 hours, laboratory 3 hours. Credit 4.

Prerequisite: E. E. 413.
Required of Seniors in M. E. and Ch. E., second semester.
A continuation of E. E. 413.
Text: Same as E. E. 413.

DEPARTMENT OF MECHANICAL ENGINEERING

MACK MARTIN, *Professor*
ELLIS C. BAKER, *Assistant Professor*

The field of the mechanical engineer includes the design and construction of tools and machinery; the solution of problems of power generation ,including those presented by the advent of the steam turbine and the gas engine; power transmission by mechanical means; and all questions involving refrigeration, heating and ventilation, gas manufacture, and the mechanical equipment of railroads. He is concerned with the design of farm motors and of agricultural machinery; with hydraulic machinery for the water supply of cities; with operations involved in mining and ore preparation; and with the design and equipment of steamships. To him is entrusted the problems concerning pumps, compressors and mechanical conveyors. More broadly still, he has now come to be a conspicuous factor in our industrial development as an organizer, systematizer and cost reducer.

The great work of the mechanical engineer is economical production. His success must be based on scientific training, but it must also depend upon the study of current methods. The aim of the course in mechanical engineering is to afford both of the above kinds of training. The student is therefore given a thorough training in the fundamental engineering principles, while at the same time he is made conversant with the principles of contemporary engineering practice.

There is a certain amount of overlapping of all the engineering courses. The student therefore acquires a broad knowledge of the different branches of engineering. The work of the Freshman year is alike for the M. E., E. E., Ch. E. and C. E. courses. The Sophomore work is alike for the M. E. and E. E. courses. Beginning with the Junior year the differentiation between these courses increases.

The steam, gas-power, hydraulic and fuel and lubricant testing laboratories are all equipped with apparatus necessary for carrying on complete experiments. The wood shop, forge shop, machine shop and the foundry are likewise completely equipped with tools and machinery necessary to do work along lines obtaining in practice.

SUBJECTS

101 ENGINEERING DRAWING. Drafting 6 hours. Credit 2.

Required of Freshmen in M. E., E. E., Ch. E., and C .E., first semester.

Care and use of drawing instruments, simple exercises in the use of drawing instruments, instrumental and free-hand lettering, geometrical constructions, construction of plane curves, orthographic and axonometric projections.

102 ENGINEERING DRAWING. Drafting3 hours. Credit 1.

Required of Freshmen in M. E., E. E., Ch. E., and C. E., second semester.

Lettering and drawing of machine parts from copy; drawing to scale.

Text: "Engineering Drawing", French.

104 DESCRIPTIVE GEOMETRY. Class 3 hours, drafting 3 hours. Credit 4.

Prerequisite: M. E., 101 or Arch. 101.

Required of all Freshmen in M. E., E. E., Ch. E., C. E., second semester.

Class-room exercises, quizzes, and problems in descriptive geometry involving points, lines, planes, tangency, intersections of planes and solids, intersections of solids, development of surfaces, shades and shadows, linear perspective, etc.

Machine drawing and proportioning of machine parts from the standpoint of good usuage and general appearance rather than from the analysis of stresses.

Text: "Engineering Drawing", French.

204 KINEMATICS. Class 2 hours, drafting 6 hours. Credit 4.

Prerequisite: M. C. 201; Math. 108.

Required of Sophomores in M. E. and E. E., second semester.

Theory of mechanism and application to instant-centers, cams, gears, linkages, belting, ball bearings, velocity and acceleration diagrams, etc.

Text: "Elements of Mechanism,,' Schwamb and Merrill.

301 MATERIALS OF MACHINES. Class 2 hours. Credit 2.

Prerequisite: Shop 202, 203; Physics 201; Chem. 102.

Required of Juniors in M. E., first semester. Elective for Juniors in Ch. E.

The manufacture and properties of iron and steel as applied to machine construction; heat treatment of steels; metallography; alloy steels; properties of copper alloys and bearing metals.

Text: "Metallurgy of Iron and Steel',, Stoughton.

303 MACHINE DESIGN. Class 3 hours. Credit 3.

Prerequisite: M. E. 201, 204. Concurrent with M. E. 301.

Required of Juniors in M. E., first semester.

Design of machine parts by analysis of stresses applied and selection of proper factors of safety. Applications of the laws of mechanics and kinematics to the design of machines, and a consideration of modifications due to practical conditions.

Text: "Machine Design," Nachman.

304 MACHINE DRAFTING. Drafting 6 hours. Credit 2.

Prerequisite: M. E. 303.

Required of Juniors in M. E., second semester.

Drafting-room applications of the work given in M. E. 303. Design and working drawings of complete machines. A short time is devoted to the subject of jigs and fixture design.

Text: "Machine Design," Nachman; "Mechanism," Schwamb and Merrill.

Reference Books: Mark's or Kent's "Mechanical Engineer's Handbook".

305 HEAT-POWER ENGINEERING. Class 4 hours. Credit 4.

Prerequisite: Physics 202. Concurrent with M. E. 307.

Required of Juniors in M. E., E. E., and Ch. E., first semester.

A functional course covering the construction and operation of steam and gas-power apparatus, including reciprocating and turbine steam engines, internal combustion engineees, gas producers, boilers and power-plant auxilaries.

Text: "Heat-Power Engineering," Allen and Bursley.

306 THERMODYNAMICS. Class 3 hours. Credit 3.

Prerequisite: M. E. 305; Math. 208.

Required of Juniors in M. E., second semester; elective for Juniors in Ch. E.

The laws and properties of gases and vapors as applied to steam engines, gas engines, steam turbines, compressors and refrigerating machinery.

Text: "Thermodynamics," Moyer and Calderwood.

307 MECHANICAL LABORATORY. Laboratory 3 hours. Credit 1.

Concurrent with M. E. 305.

Required of Juniors in M. E., E. E., and Ch. E., first semester.

Calibration of indicator springs, steam gages, thermometers, dynamometers and planimeters; of steam and fuel calorimeters; of venturi, disk and piston type meters. Proximate analysis of coals. Flash and burning tests of oils. Test of lubricants and fuel oils. Tests of injectors and separators. Valve seting with use of indicator. Simple engine and boiler tests.

Text: "Power-Plant Testing," Moyer.

308 MECHANICAL LABORATORY. Laboratory 3 hours. Credit 1.

Prerequisite: M. E. 307.

Required of Juniors in E. E., M. E., and Ch. E., second semester.

Tests of pumps, air compressors, blowers, team turbines, and gas, gasoline and oil engines.

Text: "Power-Plant Testing," Moyer.

311 STEAM AND GAS ENGINEERING. Class 2 hours. Credit 2.

Prerequisite: Physics 202.

Required of Juniors in C. E., and A. E., first semester.

The construction and selection of power plant, compressors, refrigerating machines and power-plant auxilaries.

Text: "Heat Engines" Spangler, Green and Marshall .

401 STEAM ENGINE DESIGN. Class 2 hours, drafting 6 hours. Credit 4.

Prerequisite: M. E. 304, 306.

Required of Seniors in M. E., first semester.

A study of the various types of reciprocating steam engines. Theoritical and practical considerations entering into the design of valve gears and engine details. Governor design. Balancing and the determination of flywheel weights. Compound engines. Graphical as well as mathematical methods of design are employed. The principal parts of a high-speed, automatic cut-off engine or of a Corliss engine are laid off on the drafting board.

Reference Book: Mark's or Kent's "Mechanical Engineer's Handbook."

403 GAS POWER ENGINEERING AND COMPRESSED AIR MACHINERY. Class 3 hours. Credit 3.

Prerequisites: M. E. 303, 305 and 306.

Elective for Seniors in M. E., and Ch. E., first semester.

A study of modern internal combustion engines, (gas, gasoline, oil and alcohol), and of the production of gas for motive power (natural, illuminat-

ing, producer, blast furnace and coke oven gas). Gas producers and gas cleaning. Theory and method of internal combustion engine design. A study of the physical properties of air and of the characteristics of the different types of air compressors with a view to intelligent selection of the proper type and size for a given set of conditions. Single and multi-stage compression. Hydaulic compression of air. Measurements and transmission of compressed air.

Texts: "Modern Gas Engine and Gas Producer," Levin; "Air Compression and Transmission," Thorkelson.

405 MECHANICAL LABORATORY. Laboratory 3 hours. Credit 1.

Prerequisite: M. E. 307.

Required of Seniors in M. E., first semester.

Tests of pumps, air compressors, blowers, steam turbines, refrigerating machines, and gas, gasoline and oil engines. Special engine and boiler tests; Hirn's analysis and various over-all tests of power plants.

Text: "Power-Plant Testing," Moyer.

408 MECHANICAL LABORATORY. Laboratory 3 hours. Credit 1.

Prerequisite: M. E. 307.

Required of Seniors in M. E., second semester.

A continuation of M. E. 405.

410 PUMPING MACHINERY. Class 3 hours. Credit 3.

Prerequisite: M. E. 303, 305.

Elective for Seniors in M. E., first semester.

History and development of pumping machinery; force and lift pumps; reciprocating and centrifugal pumps; hydraulic presses and hydraulic pressure lines. Theory and method of design of pumps; study of the characteristics of the various types with a view to intelligent selection of the proper type and size for a given set of conditions.

Text: "Mechanical Equipment of Buildings," Harding and Willard.

414 WORKS MANAGEMENT. Class 3 hours. Credit 3.

Prerequisite: Shop 302.

Elective for Seniors in M. E., second semester.

This course covers the consideration of the entire work, including shops, department and office as follows: Factory location and arrangement, organization and administration, duties of line and staff, cost of production and methods of modern manufacture for the attainment of accuracy and of high speed, time study, motion study, standardization, etc. Employment of labor, labor problems and wage systems. Industrial betterment.

416 THESIS. Classwork and laboratory as assigned. Creidt 3.

Prerequisite: All preceding subjects.

Elective for Seniors in M. E., second semester.

The student is assigned a problem requiring some individual research, investigation or design on his part for the purpose of demonstrating ability or aptitude for independent work.

418 ADVANCED MACHINE DESIGN. Drafting 3 to 12 hours. Credit 1 to 4

Prerequisite: M. E. 304-305.

Elective for Seniors in M. E., second semester.

The work of design will come under some of the following subdivisions: Machine Tools, including fixtures and attachments; Boiler, including a study of the different types of boilers, furnaces, automatic stokers and of smoke abatement; internal combustion engines, a more intensive study than is given in M. E., 305; Gas-Power Machinery, including gas producers, scrubbers, tar separators, washers, holders, etc. Special Machinery.

420 REFRIGERATION. Class 3 hours. Credit 3.

Prerequisite: M. E. 306.

Required of Seniors in M. E., elective for Seniors in Ch. E., second semester.

A study of the theory and principles of construction and operation of the different types of apparatus used and of the different systems employed in refrigeration. This course includes ice making, cold storage, and the further adaption of refrigeration to the arts.

Text: "Mechanical Refrigeration," Macintire.

421 HYDRAULIC MACHINERY. Class 3 hours. Credit 3.

Prerequisite: C. E. 312.

Elective for Seniors in M. E. and E. E., first semester.

Theory, design, construction and installation of water wheels, pressure, engines, and of modern hydraulic turbines, and a study of their characteristics with a view to intelligent selection of the proper type and size for any given set of conditions. Water-power development.

Text: "Hydraulic Turbines," Daugherty.

424 HEATING AND VENTILATION. Class 3 hours. Creidt 3.

Prerequisite: M. E. 305 or M. E. 311, second semester.

Elective for Seniors in M. E.

Required of Seniors in A. E. and Architecture.

Theory and design of the various systems for the heating and ventilation of buildings; hot air, hot water, steam, and the plenum and vacuum systems. Central station or direct heating.

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DEPARTMENT OF SHOP PRACTICE

DEWITT HUNT, *Superintendent of Shops*
F. R. BRADLEY, *Assistant*
E. D. SODERSTROM, *Assistant*
L. K. COVELLE, *Assistant*
FRED WICKOFF, *Assistant*

The work in the shops is intended to serve (1) Students of engineering who require training in the methods of modern shop processes, and the principles underlying efficient production; (2) students of other divisions of the College who need a less extensive training in shop work; (3) those who expect to become teachers of manual training and of vocational subjects; (4) students, not of collegiate grade, who are seeking intensive training along some vocational line.

The most remarkable achievement in shop practice in the last decade has been the reduction of each tool process to its simplest and most usable form. All of the courses in shop practice are organized for the purpose of presenting the recognized elemental tool processes, and are intended to cover nearly all the general processes in each division. Lectures are given each week in every course outlining some important phase of the work to be covered.

SUBJECTS

SHOP 101 WOODWORK. Shop practice 3 hours. Credit 1.

Required of Freshmen in M. E., E. E., Ch. E. and C. E., first semester.

The student in this course is required to make a graded set of exercises in woodwork and receives practice in the use and care of hand tools. One-half time is given to wood-turning, and during the latter part of the semester patternmaking is taken up.

SHOP 104 WOODWORK. Shop practice 3 hours. Credit 1.

Prerequisite: Shop 101.

Required of Freshmen in Ch. E., C. E., E. E. and M. E. courses.

The student is required to make a graded set of wood patterns. As far as possible all exercises are selected from designs of machines to be built in the shops. The course also includes core box construction. Lectures are given on pattern shop equipment and on special woodworking machinery.

The text used is "Wood Patternmaking", Purfield.

SHOP 108 CARPENTRY. Shop practice 3 hours. Credit 1.

Required of Freshmen students in Agriculture.

A course in toolwork suitable for farm use, embracing sawing and planing to dimensions, fastening with nails and screws; the elements of framing and the cutting of rafters.

Text: "Carpentry", Griffith.

SHOP 111 BENCHWORK. Shop practice 4 hours. Credit 1⅓.

For Manual Training Teachers.

This course covers the use of hand tools, the making of exercises involving planing, screw construction, curve forming, the dado joint and its various applications in half-lap construction, and includes elementary wood finishing.

Text: "Essentials of Woodworking", Griffith.

SHOP 112 CABINETMAKING. Shop practice 4 hours. Credit 1⅓.

Prerequisite: Shop 111.

For Manual Training Teachers.

The application of the use of woodworking machines is made in the completion of a class project involving mortise and tenon joints and paneling.

Text: "Woodwork for Secondary Schools", Griffith.

SHOP 113 MECHANICAL DRAWING. Drawing 4 hours. Credit 1⅓.

For Manual Training Teachers.

This work is arranged for those who expect to teach. A series of problems arranged suitably in pedagogical sequence is given. The making of working drawings, tracing and blueprints, machine details and assembled drawings make up the subject matter of this course.

Text: "Applied Mechanical Drawing", Matthewson and Stewart.

SHOP 114 MECHANICAL DRAWING. Drawing 4 hours. Credit 1⅓.

For Manual Training Teachers.

Prerequisite: Shop 113.

A study of orthographic projections, development of surfaces, intersections, isometric projections, and a brief study of house-planning. This course is planned to give the high school manual training teacher a general view of the field of mechanical drawing.

Text: "Applied Mechanical Drawing", Matthewson and Stewart.

SHOP 115 CARE OF SHOP EQUIPMENT. Class 1 hour. Practice 2 hours. Credit 1⅔.

For Manual Training Teachers.

Lectures and practice involved in the care of shop tools, saw-filing, sharpening of edge tools, care of machines and installation of shop equipment will be given in this course.

SHOP 116 DESIGN. Class 1 hour. Practice 2 hours. Credit 1⅔.

Prerequisite: Shop 113.

For Manual Training Teachers.

This is primarily a course in drawing in which the student designs pieces that may be made in the shop. The designing is done from a standpoint of adapting the model to shop classes. A tracing is kept of each piece designed and an exchange of shop drawings thus established. Students may make blueprints from any of these tracings and thus go out with a well established, graded set of models.

SHOP 202 FORGE. Shop practice 3 hours. Credit 1.

Required of Sophomores in M. E., E. E. and C. E., second semester.

The student is required to make a graded set of forgings and the various types of welds. Tool-dressing, hardening and tempering, casehardening, and the heat treatment of carbon and high-speed tool steels is performed by the student. Lectures are given on the study of wrought metals and on heat treatment.

Text: "Plain and Ornamental Forging," Schwartzkopf.

SHOP 203 FOUNDRY. Shop practice 3 hours. Credit 1.

Required of Sophomores in M. E., E. E. and C. E., first semester.

The student is required to make a graded set of molds of patterns which, for the most part, are to be used on machines or apparatus that is to be built in the shops. Preparation and charging the cupola, pouring off heats and mixing and baking cores. Lectures are given on modern foundry practice.

Text: "Elementary Foundry Practice", Richards.

SHOP 205 AGRICULTURAL FORGING. Shop practice 3 hours. Credit 1.

Required of Sophomore students in Agriculture.

The work in this course covers the shaping and welding of steel. the forging of farm machinery parts, drilling metals and other problems in forging adaptable to farm needs.

SHOP 206 ART FORGING. Shop practice 4 hours. Credit 1⅓.

Prerequisite: Forging 205.

For Manual Training Teachers.

An advanced course in forging, adapting the work to the needs of a high school forge shop where a large proportion of interest in the work is necessary.

Text: "Plain and Ornamental Forging", Schwartzkopf.

SHOP 207 ADVANCED WOOD-TURNING. Shop practice 4 hours. Credit 1⅓.

For Manual Training Teachers.

Practice in fancy turning, involving gluing up stocks for spindle turning, faceplate turning of cups, trays, covered boxes, table-legs, spiral turning and mandrel work.

SHOP 208 ADVANCED CABINET MAKING. Shop practice 4 hours. Credit 1⅓.

Far manual Training Teachers.

Prerequisite: Shop 207.

Advanced work in cabinet making, including some carving and wood finishing.

SHOP 301 MACHINE SHOP. Shop practice 4 hours. Credit 1⅓.

Required of Juniors in M. E. and E. E., first semester.

SHOP 302 MACHINE SHOP. Shop practice 4 hours. Credit 1⅓.

Prerequisite: Shop 301.
Required of Juniors in M. E. and E. E., second semester.

SHOP 311 METHODS OF TEACHING FARM SHOP WORK. Class 2 hours, practice 2 hours. Credit 2⅔.

For Junior Smith-Hughes Teachers of Vocational Agriculture.

What to teach and how to teach shopwork in Smith-Hughes classes in Vocational Agriculture. Organization of subject matter, methods of teaching shopwork, planning and upkeep of equipment, reading and working from blueprints and study of sources of supplies.

Text: "Farm Woodwork," Roehl.

SHOP 401 MACHINE SHOP. Shop practice 4 hours. Credit 1⅓.

Prerequisite: Shop 302.
Required of Seniors in M. E., first semester.

The student in these courses is required to make a graded set of machine parts. As far as possible all exercises are selected from designs of machines that are to be built in the shops. Lectures are given on the art of cutting metals.

Text: "Machine Shop Practice", Kaup.

TRADES COURSES

These two-year courses are given, as nearly as possible, on a production basis and fit men for actual work in their chosen lines. They have been established by the State and Federal Boards of Vocaitonal Education and are supported by State and Federal funds provided by the Smith-Hughes Law. The engineering plant of the College is available for this instruction. The two years of work may be used for entrance to A. and M. College.

OUTLINE OF TRADES COURSES

FIRST YEAR

FIRST SEMESTER

	Cl.	Pr.
English V	5	
General Science 11	2	(4)
Mechanical Drawing 13		(4)
Auto Mechanics 11		(12)
and		
Forge 13		(4)
Machine-shop Practice 11		(16)
or		
Cabinetmaking 11		(16)
Physical Education		(3)
Military		(3)

SECOND SEMESTER

	Cl.	Pr.
English, V	5	
General Science 12	2	(4)
Mechanical Drawing 14		(4)
Auto Mechanics 12		(12)
and		
Forge 14		(4)
or		
Machine-shop Practice 12		(16)
or		
Cabinetmaking 12		(16)
Physical Education		(3)
Military		(3)

SECOND YEAR

FIRST SEMESTER

	Cl.	Pr.
English V	4	
Citizenship 21	2	
Shop Mathematics 21	4	
Mechanical Drawing 23		(6)
Auto Mechanics 21		(12)
and		
Machine Shop 23		(4)
Machine-shop Practice 21		(16)
or		
Cabinetmaking 21		(16)
Military		(3)

SECOND SEMESTER

	Cl.	Pr.
English, V	4	
Bookkeeping 22	5	
Mechanical Drawing 24		(6)
Auto Mechanics 22		(12)
and		
Machine Shop 24		(4)
or		
Machine-shop Practice 22		(16)
or		
Cabinetmaking 22		(16)
Military		(3)

SUBJECTS

MECHANICAL DRAWING 13. Practice 4 hours.

The elemental principles and processes of making accurate working drawings. All work is done from models. Applied drawing.

MECHANICAL DRAWING 14. Practice 4 hours.

The making of working drawings continued; threads, machine parts, tracing and blueprinting are included.

MECHANICAL DRAWING 23. Practice 6 hours.

This course is applied to the various trades courses as follows:

MACHINE-SHOP PRACTICE.—Students make drawings of machines, both detailed and assembled.
Text: "Mechanical Drafting", Miller.

MECHANICS.—Make working drawings of gasoline and auto engines and parts.
Text: "Mechanical Drawing for High Schools," French and Svenson.

CABINET-MAKING.—Students make working drawings of cabinet construction and inside finish.

MECHANICAL DRAWING 24. Practice 6 hours.

A continuation of Mechanical Drawing 23.

FORGE 13. Shop practice 4 hours.

First blasksmithing—heating, shaping and welding. Tempering and hardening of steel. Pipefitting and drillpress work. Covered in lectures and practice.

FORGE 14. Shop practice 4 hours.

Prerequisite: Forge 13.
Soldering, brazing and oxy-acetylene welding, toolmaking and types of casehardening.
Text: "Automobile Welding With Oxy-Acetylene Flame", Dunham.

AUTO MECHANICS 11. Auto repairing 12 hours.

Taking down engines, reassembling them and adjusting all parts.
Text: "Dyke's Cyclopedia of Auto Mechanics."

AUTO MECHANICS 12. 12 hours.

General repairing of transmission, rear axle, steering-gear, wheels, etc.

AUTO MECHANICS 21. Auto repairing 12 hours.

Magneto, starting ignition and lighting, carburetor adjustment and study, running-in bearings, engine repair and replacement of parts. Forging includes soldering, brazing and oxy-acetylene welding.
Text: "Modern Starting, Lighting and Ignition Systems", Page.

AUTO MECHANICS 22. Auto repairing 12 hours.

General auto repairing. In this semester students will work on actual repairing. Machine-shop applied to auto repairing.

MACHINE-SHOP PRACTICE 11. Machine-shop 16 hours.

The use of lathe, shaper and planer on exercise work.
Text: "Machine-Shop Practice", Kaup.

MACHINE-SHOP PRACTICE 12. Machine-shop 12 hours, Forge 12, 4 hours.

In this semester the student begins work on a productive basis. Several

glue presses and lathes are to be built, and machine-shop practice students will do all of the machine-shop work on these.

Text: Same as for first semester.

MACHINE-SHOP PRACTICE 21. Machine-shop 12 hours, Forge 23, 4 hours.

The work of this semester consists entirely of toolmaking, involving use of milling machine and grinder, and the heat treatment of steel in annealing, casehardening, etc.

Text: "Hardening, Tempering and Forging of Steel", Woodworth.

MACHINE-SHOP PRACTICE 22. Machine-shop practice 16 hours.

Machine work on productive basis, with cost of production of complete machine figured.

No text.

CABINET-MAKING 11, 12, 21, 22.

All Semesters.—The College furnishes the shops with sufficient cabinet-making work to keep many boys busy on productive work, such as storage cases, exhibit cases, chairs, desks and many other types of cabinet furnishing. After a student reaches a certain proficiency in his work he is paid for his time spent on productive work.

Text: "Woodwork for Secondary Schools", Griffith.

MACHINE SHOP 23. Shop practice 4 hours.

Text: "Machine Shop Practice," Kaupp.

MACHINE SHOP 24. Shop practice 4 hours.

A continuation of Machine Shop 23.

COURSE FOR MANUAL TRAINING TEACHERS

For two years College course leading to Special Manual Training Teacher's Certificate, see School of Education, page .....

THE SCHOOL OF HOME ECONOMICS

RUTH MICHAELS, *Dean*

The School of Home Economics offers the following curricula: Four-year courses leading to a degree of Bachelor of Science (Home Economics); two-year course for normal graduates leading to a degree of Bachelor of Science (Home Economics); non-collegiate vocational course and short unit courses for home makers; and special courses for teachers during the summer session.

The professional course for Smith-Hughes teacher-training is planned in accordance with the provisions of the Smith-Hughes Act, and is approved by the Federal and State Boards of Education. The following is taken from the 1920-21 Bulletin of State Board of Vocational Education and refers to the qualifications of teachers of Home Economics in high schools receiving Smith-Hughes aid:

> (1) Practical Experience. The teacher must have had at least two years' actual experience with the practical problems of Home Economics or her college course must have included a course in supervised home management under home conditions.
>
> (2) Training in Home Economics. The teacher of Vocational Home Economics must have graduated fro ma four-year Home Economics course in an approved college or possess the qualifications ekuivalent to graduation.
>
> (3) Professional Training. The teacher of an all-day school must have spent, during her college course, at least ten per cent. of her college hours in professional training which should include special methods in Home Economics and practice-teaching in Home Economics.

The course for extension workers is especially well suited to these Southern States, as the extension field under the Smith-Lever Act is very well developed here and there is a great demand for young women qualified to fill both city and country positions, and also to asume work as field specialists.

The general course in Home Economics, less severely technical and allowing liberal electives is arranged for those students who wish to enter graduate courses leading to technical work; for those who desire a general knowledge of the subject matter as a part of a liberal education; and for those who wish to make a detailed study of this line of work in its relation to the arts and sciences needed in home management. This course allows thirty (30) hours of electives which may be taken in any other school or department. Young women electing the general course in Home Economics may so arrange electives that they can prepare to enter

the various business lines related to foods, nutrition, textiles, household management, and welfare work.

The non-collegiate course is arranged for girls whose training does not qualify the mto enter the degree courses listed above. The purpose is to give in a short time the most helpful training possible for these young women.

During the summer session special courses are offered which will allow teachers to receive credit on their certificates for these subjects; and which will also help them in planning courses of study; in the selection of equipment; and in the arranging of a laboratory for their schools. These courses will also include a discussion of the current problems arising in the field of Home Economics. For detailed announcement, see Summer School Bulletin.

The training in all these courses is both general and specific; much emphasis is placed on the scientific work as a foundatiton for the specific courses in Home Economics as scientific training is fundamental in the successful administration of the home. Much attention is also paid to English, History, Languages, and other general courses so that the students may possess a well rounded education. In most of the degree courses in the School of Home Economics the time is quite equally divided between general, scientific and technical work.

The School of Home Economics has recently moved into the new building erected especially for the division, well equipped with modern facilities for conducting the work of all departments. An attractively furnished campus practice house makes possible the studying of many household administration problems and serves as a laboratory for household management and administration, while the lunch room in the new building and the cafeteria offer problems in institutional work.

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COURSES IN THE SCHOOL OF HOME ECONOMICS

The following outline of study represents the required and elective work in the School of Home Economics. The courses are numbered, beginning with one hundred in the Freshman year; odd numbers, as 101, represent the first semester's work in the subject, and the even numbers, as 102, the second semester's work. Subjects of the Sophomore, Junior and Senior years are numbered accordingly, two hundred for Sophomore, three hundred for Junior, and four hundred for Senior work. One hour of laborator period is equivalent to one-third of a classroom period in estimating the number of hours per week to be taken.

The total requirements for graduation are 128 credits, exclusive of and credits given in physical education.

In the outline below, figures without parenthisis indicate hours of class-work, in parenthisis hours of laboratory work.

HOME ECONOMICS

FRESHMAN YEAR

FIRST SEMESTER

	Hours		Cr.
Eng. 101, College	3		3
Chem. 101, Inorganic	3	(3)	4
H. E. 103, Survey	1		1
H. E. 105, Textiles and Sewing	2	(3)	3
Draw. 107, Design and Color	1	(3)	2
Pub. Sp. 101	2		2
or			
French 101	3		3
Physical Education 101		(3)	

SECOND SEMESTER

	Hours		Cr.
Eng. 102, College	1		3
Chem. 102, Inor. and Qualitative	3	(3)	4
H. E. 106, Textiles and Clothing	2	(3)	3
H. E. 108, Food Study	2	(3)	3
Zool. 102, Economics	2	(4)	3⅓
or			
French 102	3		3
Physical Education 102		(3)	

SOPHOMORE YEAR

FIRST SEMESTER

	Hours		Cr.
Eng. 207, Eng. Literature	3		3
Chem. 211, Organic	3	(4)	4⅓
H. E. 205, Food Study	2	(3)	3
Edu. 203, Psychology	3		3
Elective	3		3
Physical Education 201		(3)	

SECOND SEMESTER

	Hours		Cr.
Eng. 208, Eng. Literature	3		3
Chem. 212, Organic	3	(4)	4⅓
H. E. 208, House	2	(4)	3⅓
Physiol. 202, Advanced	3	(2)	3⅔
Elective	3		3
Physical Education 202		(3)	

JUNIOR YEAR (General Course)

FIRST SEMESTER

	Hours		Cr.
H. E. 311, Food and Nutrition	3		3
H. E. 313, Clothing Appreciation	1	(4)	2⅓
Econ. 201, Principles	3		3
Electives	8		8

SECOND SEMESTER

	Hours		Cr.
H. E. 314, Dietetics	2	(3)	3
Hist. 306, Indus. Hist. of U. S.	3		3
Pub. Spk. 101, Essentials	2		2
or			
Electives	2		2
Electives	8		8

SENIOR YEAR (General Course)

FIRST SEMESTER

	Hours		Cr.
H. E. 307, History of Costume	2		2
H. E. 310, Dressmaking	1	(6)	3
H. E. 413, Advanced Tailoring	1	(4)	2⅓
Electives	8		8

SECOND SEMESTER

	Hours		Cr.
H. E. 418, Household Adminis.	3	(6)	5
H. E. 424, Food Service	1	(6)	3
H. E. 421, Woman and Family	4		4
Electives	4		4

JUNIOR YEAR (Smith-Hughes Teacher-Training)

FIRST SEMESTER

	Hours		Cr.
H. E. 311, Nutrition	3		3
H. E. 313, Clothing Appreciation	1	(4)	2⅓
Bact. 303, Household	2	(4)	3⅓
Edu. 316, H. S. Methods	3		3
Pub. Sp. 101, Essentials	2		2
or			
Electives	2		2
Electives	3		3

SECOND SEMESTER

	Hours		Cr.
H. E. 314, Dietetics	2	(3)	3
H. E. 310, Dressmaking	1	(6)	3
H. E. 316, Special Methods	2	(3)	3
Hist. 306, Indus. Hist of U. S.	3		3
Electives	4		4

SENIOR YEAR (Smith-Hughes Teacher-Training)

FIRST SEMESTER

	Hours		Cr.
Edu. 305, History of Education	3		3
H. E. 405, Home Eco. Education	4	(6)	6
H. E. 307, History of Costume	2		2
Electives	5		5

SECOND SEMESTER

	Hours		Cr.
H. E. 418, Household Adminis.	3	(6)	5
H. E. 429, Child Welfare	4		4
Edu. 310, Psychology of Adolescence	2		2
H. E. 419, Millinery		(3)	1
Electives	3		3

JUNIOR YEAR (Extension Workers)

FIRST SEMESTER

	Hours		Cr.
Eng. 203, News Writing	2		2
H. E. 311, Nutrition	3		3
H. E. 313, Clothing Appreciation	1	(4)	2⅓
Bact. 303, Household	2	(4)	3⅓
Electives	6		6

SECOND SEMESTER

	Hours		Cr.
Eng. 204, Magazine Writing	2		
H. E. 314, Dietetics	2	(3)	3
Econ. 201, Principles	3		3
Pub. Spk. 101, Essentials	2		2
or			
Electives	2		2
Electives	6		6

SENIOR YEAR (Extension Workers)

FIRST SEMESTER	Hours		Cr.	SECOND SEMESTER	Hours		Cr.
H. E. 424, Food Service	1	(6)	3	H. E. 418, Household Adminis.	3	(6)	5
Dairy 409, Domestic Dairying	1	(3)	2	H. E. 416, Food Problems	1	(4)	2⅓
H. E. 423, Extension Methods	3		3	H. E. 434, Housewifery	2	(3)	3
H. E. 310, Dressmaking	1	(6)	3	Electives	5		5
Electives	5		5				

Students not taking Public Speaking in the Freshman year must take it before they complete the work of Junior year.

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HOME ECONOMICS FOR NORMAL SCHOOL GRADUATES

Students who have completed the equivalent of the fifteen standard entrance units required of high school graduates and who have graduated from the two-year course at a state normal may be admitted to junior standing in the School of Home Economics. We have found in the past that the credits of such students apply to the best advantage on the Smith-Hughes teacher-training course.

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JUNIOR YEAR (Normal School Graduates—Teacher Training Course)

FIRST SEMESTER	Hours		Cr.	SECOND SEMESTER	Hours		Cr.
Chem 101, Inorganic	3	(3)	4	Chem. 102, Inorganic and Qualitative	3	(3)	4
Bact. 303, Household	2	(4)	3⅓	H. E. 208, House	2	(4)	3⅓
H. E. 313, Clothing Appreciation	1	(4)	2⅓	Edu. 310, Psychology of Adolescence	2		2
H. E. 310, Dressmaking	1	(6)	3	H. E. 429, Child Welfare	4		4
Edu. 316, High School Methods	3		3	H. E. 316, Special Methods in Home Economics	2	(3)	3

SENIOR YEAR

FIRST SEMESTER	Hours		Cr.	SECOND SEMESTER	Hours		Cr.
H. E. 405, Home Eco. Education	4	(6)	6	H. E. 418, Household Adminis.	3	(6)	5
H. E. 311, Nutrition	3		3	H. E. 314, Dietetics	2	(3)	3
Chem. 211, Organic	3	(4)	4⅓	Chem. 212, Organic	3	(4)	4⅓
Electives	4		4	Electives	4	(4)	4

Note.—Students who have had equivalent courses to Chem. 101 and 102 may take Chem. 211 and 212 in the Junior year and take additional electives in the senior year.

Note.—Students who have not had equivalent courses to H. E. 105 and 106 and H. E. 108 and 205 must take these courses instead of electives in the Junior year.

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FOODS, NUTRITION AND HOME MANAGEMENT

BERNICE WAIT, *Assistant Professor*
GERTRUDE THOMAS, *Instructor*
GLADYS SLININGER, *Instructor—Supervisor of Practice House*

The department of Foods and Nutrition has in the new Home Economics building well equipped offices, laboratories, and lecture rooms. The laboratories and dining rooms are fully equipped for various lines of food work including large quanty cookery; special

problem work in nutrition; practice in proper service of meals; and lunchroom work.

A modern house on the campus is used by the senior women in the Household Administration course for actual experience in housekeeping.

SUBJECTS

108 FOOD STUDY. Class 2 hours, laboratory 3 hours. Credit 3.

Prerequisite: Chem. 101. (Equivalent to course 203 in 1920 catalog).

This course introduces the scientific and economic study of foodstuffs. The work in the laboratory consists of the experimental study of food processes as applied to the various foods, and the cost and food value of each.

Text: "Food Products," Sherman.

H. E. 205 FOOD STNDY. Class 2 hours, laboratory 3 hours. Credit 3.

Prerequisite: H. E. 108 (equivalent to H. E. 204 in 1920 catalog).

A study of the scientific principles of cookery with their application to the planning, preparation and serving of meals.

311 NUTRITION. Class 3 hours. Credit 3.

Prerequisite: H. E. 205: Chem. 212; Physiol. 202.

A study of the process of metabolism, the fuel value of foods and the energy requirement of the body.

Text: "Chemistry of Foods," Sherman.

314 DIETETICS. Class 2 hours, laboratory 3 hours. Credit 3.

Prerequisite: H. E. 311.

The study of the diet of individuals and groups under varying conditions of health and environment; also the relation between the nutritive value and cost of foods and the service of meals.

Text: "Feeding the Family," Rose.

416 FOOD PROBLEMS. Class 1 hour, laboratory 4 hours. Credit 2⅓.

Prerequisite: Open to Seniors in Home Economics. Will be offered both semesters.

Study of individual problems. Each student selects some problem in foods or related subjects giving the results in the form of a demonstration.

427 ADVANCED FOODS AND NUTRITION. Class 2 hours, laboratory 3 hours. Credit 3.

Prerequisite: H. E. 314.

This course includes a study of the recent advances in the field of food and nutrition; and also of the problems of the nutrition worker in fields other than teaching. The student will be given opportunity to assist in a nutrition clinic or other problem work.

428 ADVANCED FOODS AND NUTRITION. Class 2 hours, laboratory 3 hours. Credit 3.

Prerequisite: H. E. 427.

Continuation of Home Economics 427.

434 HOUSEWIFERY. Class 2 hours, laboratory 3 hours. Credit 3.

Prerequisites: Open to Juniors in Home Economics. Will be offered both semesters.

A study of the processes involved in practical housekeeping.

Text: "Housewifery," Balderston.

424 FOOD SERVICE. Class 1 hour, laboratory 4 hours. Credit 2⅓.

Prerequisite: Open to Juniors or Seniors in Home Economics. Will be offered both semesters.

This course is designed to give practice in handling food materials in large quantities, with special reference to lunchroom and cafeteria work.

418 HOUSE ADMINISTRATION. Class 3 hours, laboratory hours.—

Prerequisite: Bact. 303; H. E. 314. Will be offered both semesters.

Course includes study of principles of scientific management of the house; budget making; social, civic and economic duties and responsibilities of the homemaker. Laboratory work includes residence in Practice House, where detailed studies are made of time, of efficiency of methods, and of financial expenditures involved in the household processes.

Text: "Business of the Household," Taber.

GENERAL COURSES

103 INTRODUCTION TO HOME ECONOMICS. Class 1 hour. Credit 1.

Study of women's education with special reference to home economics and the vocations open in this field.

420 HISTORY OF HOME ECONOMICS. Class 2 hours. Credit 2.

Open to Seniors in Home Economics.

Origin and development of home economics; its industrial and sociological aspects.

421 WOMAN AND THE FAMILY. Class 4 hours. Credit 4.

Open to Juniors and Seniors.

A study of woman's work and her industrial and economic conditions with reference to the home and society.

Text: "Family as an Educational Institution," Goodsell.

423 EXTENSION METHODS. Class 3 hours. Credit 3.

Open to Juniors and Seniors in Home Economics.

This course is designed to prepare for various types of extension work and for field administration under the Smith-Lever Act. It includes the following: Administration. Organization—organizing a state or county for working purposes. Group organization, such as women's and girls' clubs, farm bureaus. Projects—Under this head home projects will be outlined in detail both fro madministrative and subject matter standpoint. Methods of follow-up work will be studied and project records worked out. Presentation of subject matter in the form of lectures, demonstrations, lesson outlines. The making and checking of field reports and records. Field supervision. State-wide work such as arrangement of programs for movable schools and conventions, conduct of campaigns, surveys. Relationship—The relation of field workers to each other, to county organizations and to other organizations will be studied.

429 CHILD WELFARE. Class 4 hours. Credit 4.

Will be offered both semesters. Open to Juniors and Seniors.

A course dealing with the various aspects of child care, such as physical and mental development, child hygiene, child labor and recreation.

433 HOME NURSING. Class 3 hours. Credit 3.

Prerequisite: Physiol. 202.

Open to Juniors and Seniors.

Course places emphasis on prevention of diseased conditions and the development of the best physical standards as the function of the home nurse.

TEXTILE, CLOTHING AND SHELTER

NORA A. TALBOT, *Professor*
LILLIAN CARSON, *Instructor*
VIEVA BIGELOW, *Instructor*

The department is located in the Home Economics Building and has well equipped sewing laboratories and offices. The laboratories are furnished with sewing tables, sewing machines, electric irons, dress forms, drafting systems, looms, illustrative material, and textile exhibits.

SUBJECTS

105 TEXTILES AND CLOTHING. Class 2 hours, laboratory 3 hours. Credit 3.

Class study of textile fibers, and fabrics, with discussions, demonstrations and practice in garment construction. Special emphasis is placed on comparative study of home and factory products.

Text: "Textiles," Woolman & McGowan.

Section A will admit girls who have had one or more years of sewing in high school.

Section B will admit girls who have not had sewing in high school. The work will be less difficult than that of Section A. At any time one proving herself capable of doing the work may be transferred to Section A.

106 TEXTILES AND CLOTHING. Class 2 hours, laboratory 3 hours. Credit 3.

Prerequisite: H. E. 105; Chem. 101.

Continuation of H. E. 105.

The textile study is more advanced; it includes microscopic identification chemical testing, the use of adulterants, and testing for wearing qualities of fabrics.

The laboratory work is given in elementary dressmaking.

208 HOUSE PLANNING AND FURNITURE. Class 2 hours, laboratory 3 hours. Credit.

Prerequisite: Draw. 107. Will be offered both semesters 1921-22.

A study of the requierments of the home as to surroundings, room arrangement, equipment and furnishing from the viewpoint of an efficient homemaker.

Text: "Domestic Arhcittecture," Robinson.

310 ADVANCED CLOTHING CONSTRUCTION AND DESIGN. Class 1 hour, laboratory 6. Credit 3.

Prerequisite: H. E. 106; H. E. 313.

Will be offered both semesters.

This course aims to develop initiative and originality in relation to good taste in dress in the planning and the constructing of clothing; skill and speed of construction; modeling on the form; fitting and finishing blouses, skirts and dresses.

Text: "Clothing for Women," Baldt.

307 HISTORY OF COSTUME. Class 2 hours. Credit 2.

Open to juniors and seniors.

Costume study of various periods and countries, with reference to its in-

fluence on modern styles. Consideration of political, industrial and economic influence upon dress.

313 CLOTHING APPRECIATION. Class 1 hour, laboratory 4 hours. Credit 2⅓ hours.

Prerequisite: H. E. 106; Draw. 107.

Designing of costume for various occasions, study of line, light and dark color theory, and fabrics and texture combinations.

Text: Part of book "Clothing," by Woodson, will be used.

413 ADVANCED TAILORING. Class 1 hour, laboratory 4 hours. Credit 2⅓.

Prerequisite: H. E. 310; elective junior or senior year.

Study of tailored garments; principles and processes of tailoring; making a coat embodying the principles of line, texture and color as brought out in H. E. 313 and H. E. 310.

414 ART NEEDLE WORK. Laboratory 3 hours. Credit 1.

Prerequisite: Draw. 107! H. E. 106.

A study of embroidery and its application in individual problems.

410 MILLINERY. Laboratory 3 hours. Credit 1.

Prerequisite: H. E. 310, 313.

Designing and construction of hats; trimming and renovation.

422 ADVANCED TEXTILE AND TEXTILE RESEARCH. Class 1 hour. laboratory 3 hours. Credit 2⅓.

Prerequisite: H. E. 106; Chem. 212.

Microscopic and chemical analysis of fabrics, adulterants and substitutes, with special study on certain chosen problems.

430 INTERIOR DECORATION. Class 1 hour, laboratory 4 hours. Credit 2⅓.

Prerequisite: H. E. 208; Bact. 303.

Principles of planning and of house construction. different types of dwelling and factors deciding their location. Application of periods in schemes for house interiors.

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SMITH-HUGHES TEACHER'S TRAINING

AURA KEEVER, Assistant Professor-Supervisor Teacher's Training
————————, Instructor
RUTH MYERS, *Instructor-Supervisor of Vocational Course.*

This department was established to train teachers of vocational home economics and related subjects for the secondary schools. The course for Smith-Hughes teachers as outlined has been approved by the Federal and State Boards of Vocational Education.

All classrooms in the Home Economics building are available for this instruction. Two of the laboratories have been specially equipped to meet high school conditions.

SUBJECTS

316 SPECIAL METHODS IN HOME ECONOMICS EDUCATION. Class 2 hours, laboratory 3 hours.

Prerequisite: All preceding subjects in the Teacher's Training course.

Course offered both semesters, open to seniors first semester, to juniors the second semester.

Survey of home economics in the various types of schools, application of general methods of instruction to this special field. Observation of teaching required.

Text, "Teaching Home Economics," Cooley, Winchell, Spohr and Marshall.

405 HOME ECONOMICS PRACTICE TEACHING. Class 4 hours, laboratory 6 hours.

Prerequisite: H. E. 316.

Open only to seniors in the teacher-training department of the School of Home Economics. Offered both semesters.

Planning courses of study and equipment to meet the needs of the various types of schools. Study of all available literature. Practice teaching under supervision required.

(Note.)—To meet the state requirement of practical experience for teachers of vocational home economics, all prospective Smith-Hughes teachers are required to carry out home projects during the summer vacations.

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HOME MAKER'S COURSE (Vocational and Non-Collegiate)

The Home Maker's Course is designed to meet the needs of young women who are unable to take an extended course, yet who recognize the need for special training in home making. The twentieth century demands for home managers an understanding of sanitary requirements of the home, a knowledge of values, absolute and relative, of articles used in the house, quick attention to details, good judgment in buying and a ready adaptation of means to an end in view. The course is designed so that a girl will acquire not merely the mechanical skill involved in all her home duties, but that she will learn to combine intelligence and interest along with that skill.

The teaching in this course is no less accurate than in the regular course, but necessarily different. Given to students without scientific training, the instruction must be more largely presentation of facts, without an elaboration of underlying principles. The entire equipment of the Home Economics Division of the College is available for this instruction.

Courses in piano, violin, and voice are open to students.

The course is established by the State and Federal Boards of Education, and is supported by State and Federal funds provided by the Smith-Hughes Law. A certificate of completion is issued when the student has finished the course.

The instruction is so arranged that a student may enter the Sec-

ondary School upon completion of the Home Maker's Course. The student must be at least fifteen years of age and have completed the common school if the Home Maker's Course credits are used for college entrance.

FIRST YEAR

	Hours		Hours
English 11	5	English 12	5
Arithmetic 12	5	Physiology 11	3 (2)
Industrial Drawing 11	(4)	Industrial Drawing 12	(4)
H. E. 11, Plain Sewing	(6)	H. E. 12, Plain Sewing	(6)
H. E. 13, Food Study and Cookery	(6)	H. E. Food Study and Cookery	(6)
Physical Education	(3)	Physical Education	(3)

SECOND YEAR

	Hours		Hours
English 21	4	English 22	4
General Science 21	2 (4)	General Science 22	2 (4)
H. E. 21, Home Nursing and Hygiene	2 (2)	H. E. 22, House-Planning and Furnishing	(6)
H. E. 23, Dressmaking and Millinery	(6)	H. E. 24, Dressmaking and Millinery	(6)
H. E. 25, Cookery	(6)	H. E. 26, Housekeeping	(6)

SUBJECTS

H. E. 11 PLAIN SEWING. Laboratory 6 hours.

Principles of hand and machine sewing applied to simple undergarments. Mending and patching. Study of textiles and fabrics used. Care and repair of clothing. Hygiene of clothing.

Text: "Textiles and Clothing", McGowan and Waite.

H. E. 12 SEWING AND TEXTILES. Laboratory 4 hours.

Continuation of Home Economics 11.

H. E. 13 FOOD STUDY AND COOKERY. Laboratory 6 hours.

Study of foods covering source, purchase, food value and preparation for use. Laboratory work to correlate with classwork—practice in the preparation of foods, including cost and service.

Text: "Textbook of Cooking", Greer; "Food and Its Preparation", Dowd and Jamison.

H. E. 14 FOOD STUDY AND COOKERY.

Continuation of Home Economics 13.

H. E. 21 HOME NURSING AND HYGIENE. Class 2 hours, laboratory 2 hours.

A study of the home care of the sick; general care of the sickroom; emergencies.

Text: "American Red Cross Textbook on Home Hygiene.

H. E. 22 HOUSE PLANNING AND FURNISHING. Laboratory 6 hours.

Study of modern house from standpoint of sanitation, location, floor space, arrangement and cost. Practical course in house furnishing.

H. E. 23 DRESSMAKING AND MILLINERY. Laboratory 6 hours.

Study of textile fibers and fabrics; clothing appreciation; history of costume; economics of clothing. Elementary dressmaking; renovating of garments.

H. E. 24.

Continuation of Home Economics 23.

H. E. 25 ADVANCED COOKERY. Laboratory 6 hours.

Food study and cookery, including elementary dietetics, planning and serving of meals.

H. E. 26 HOUSEKEEPING. Laboratory 6 hours.

Care of the house, laundering, household accounts. Students to live in Practice House part of the time, where they may put into practice knowledge gained in class and laboratory, and have experience of managing a home.

Text: "Manual of Homemaking", Van Rennslaer, Rose and Canon.

INDUSTRIAL DRAWING 11. Practice 4 hours.

Principles of design and harmony of color developed through decorative arrangement and artistic rendering from observation of nature forms.

INDUSTRIAL DRAWING 12. Practice 4 hours.

Principles of constructive design and color applied to problems in industrial art, including projects in paper, cardboard and cloth.

Non-vocational subjects (Eng. 11, 12, 21, 22; Arith. 12; Physiol. 11; General Science 21 and 22) are taught in the Secondary School. (See index for description of courses.)

THE SCHOOL OF SCIENCE AND LITERATURE

L. L. LEWIS, *Dean*

The courses in the School of Science and Literature offer a sound basis for training in mathematics, chemistry, physics, biological sciences and in the languages. It is also becoming more and more evident that one's education should include some work in history, social science and in economics. These related subjects give a better understanding of one's duties and responsibilities as a citizen, and a broad and liberal view of the relations of the individual to society.

The work of the school is presented to the prospective student along three lines. The Freshman year is the same for those electing the General Science and the Exact Science work. For those electing the General Literature course, zoology and economics may be substituted for the mathematics of this year. With this minor difference in the Freshman year, the differentiation of the work in the three divisions appears in the Sophomore year. First, the general science work, where biological and chemical sciences represent a large part of the science work offered; second, the exact science work, represented largely by mathematics, physics and chemistry; and third, in the general literature division, where work in English history and the foreign languages represents a large portion of the course, but opportunities are offered for work in sociology, economics and education. Where other courses offer vocational subjects, the science and literature work, by means of groups of electives, offer special opportunities for work in either the sciences or language. Opportunities for selecting work of this character meets the needs of students desiring a liberal education as a foundation for professional courses, as law or medicine, as well as those students who desire to secure a training that is well balanced in respect to literature, science and cultural subjects.

ELECTIVES

Students who elect either the exact or general science work will

be permitted to substitute in either of these courses work selected from the other course, and to some extent work selected from other courses offered in the College. Such substitutions will be permitted after consultation with the Dean of the school, and approval of the Committee on Substitutions.

Electives in the general literature group are so arranged as to permit the student to elect along the following lines: Foreign language, English, social science, history, economics or science. Students should select their electives along one of these lines.

RELATIONS TO OTHER SCHOOLS

Besides the instruction given to students in the School of Science and Literature, the instructional force gives much of the collateral work offered in the other schools of the College. Other schools of the College cooperate in giving some of the work offered in the School of Science and Literature.

EQUIPMENT

The departments represented in the School of Science and Literature are well equipped to give the work they offer. The laboratories in the Departments of Bacteriology, Botany, Chemistry, Physics and Physiology are well provided with the necessary scientific equipment to give the work offered. In January, 1920, the Department of Chemistry moved into the new Chemistry Building. The additional room and equipment afforded by this building will give increased facilities to students of chemistry in all departments.

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COURSES IN THE SCHOOL OF SCIENCE AND LITERATURE

The following outline of study represents the required and elective work in the School of Science and Literature. The courses are numbered, beginning with one hundred in the Freshman year; odd numbers, as 101, represent first semester work. Subjects of the Sophomore, Junior and Senior years are numbered accordingly—two hundred for Sophomore, three hundred for Junior and four hundred for Senior work. One hour of laboratory period is equivalent to one-third of a classroom period in estimating the number of hours per week to be taken.

The total requirements for graduation are 128 credits, exclusive of any credits given in physical education.

In the outline below, figures without parenthesis indicate hours of classwork; in parenthesis hours of laboratory work.

Any student may elect the work of the Reserve Officers Training Corps, which counts 3 hours credit in each semester of the Junior and Senior years. This credit will be accepted as a substitute for elective work, or for required work by special arrangement.

FRESHMAN YEAR

FIRST SEMESTER	Hours		Cr.	SECOND SEMESTER	Hours		Cr.
Eng. 101, College	3		3	Eng. 102, College	3		3
Chem. 101, College	3	(3)	4	Chem. 102, Inorganic	3	(3)	4
Latin 101, Caesar or Foreign Language 101	3		3	Latin 102, Caesar or Foreign Language	3		3
Math. 105, Algebra	4		4	Math. 108, Trigonometry	3		3
Draw. 101, Freehand		(3)	1	Draw. 102, Freehand		(3)	1
Physical Education		(3)		Pub. Spk. 101	2		2
Military Science		(3)	1	Physical Education		(3)	
				Military Science		(3)	1

GENERAL SCIENCE

SOPHOMORE YEAR

FIRST SEMESTER	Hours		Cr.	SECOND SEMESTER	Hours		Cr.
Chem. 201, Qualitative Analysis	2	(6)	4	Chem. 210, Quantitative Analysis	2	(6)	4
Eng. 201, Advanced Composition or Eng. 203, News-Writing	2		2	Eng. 202, Advanced Composition or Eng. 204, News-Writing	2		2
Zool. 201, General	3	(4)	4⅓	Zool. 210, Vertebrate	2	(4)	3⅓
Physical Education (Women)		(3)		Math. 204, Astronomy	2		2
Military Science		(3)	1	Physical Education (Women)		(3)	
Elective			4⅔	Military Science		(3)	1
				Elective			3⅓

SUGGESTED SOPHOMORE ELECTIVES

FIRST SEMESTER	Hours		Cr.	SECOND SEMESTER	Hours		Cr.
Pub. Spk. 201	2		2	Pub. Spk. 202	2		2
Eng. 205, Current Literature	1		1	Eng. 206, Current Literature	1		1
Edu.	3		3	Edu.	3		3
Hist.	3		3	Hist.	3		3
Econ. 201, Principles	3		3	Econ. 206, Business Management	3		3
Physics 320, Lecture Course	2		2	Physics 430, Meteorology	2		2
Physics 201, Engineering	4	(3)	5	Physics 202, Engineering	4	(3)	5

JUNIOR YEAR

FIRST SEMESTER	Hours		Cr.	SECOND SEMESTER	Hours		Cr.
Bot. 101, General	2	(4)	3⅓	Bot. 102, General	2	(4)	3⅓
Chem. 311, Organic	3	(4)	4⅓	Chem. 312, Organic	3	(4)	4⅓
Ento. 202, General	3	(2)	3⅔	Bact. 310, General	3	(4)	4⅓
Foreign Language	3		3	Hist. 306, Industrial	3		3
Elective			2	Foreign Language	3		3

SENIOR YEAR

FIRST SEMESTER	Hours		Cr.	SECOND SEMESTER	Hours		Cr
Bact. 403, Immunity	3	(4)	4⅓	Bact. 404, Immunity	3	(4)	4⅓
Edu. 203, Psychology	3		3	Edu. 204, Educational Psychology	3		3
Zool. 401, General Biology	3	(2)	3⅔	Bot. 304, Plant Physiology	2	(2)	2⅔
Foreign Language	2		2	Foreign Language	2		2
Elective			3	Elective			2

SUGGESTED SENIOR AND JUNIOR ELECTIVES

FIRST SEMESTER	Hours		Cr.	SECOND SEMESTER	Hours		Cr.
Bact. 405, Agricultural	2	(4)	3⅓	Bact. 402, Sanitary Science	3		3
Chem. 401, Advanced Inorganic	3	(6)	5	Chem. 402, Physical	2	(6)	4
Chem. 305, General Organic	3	(7)	5⅓	Ento. 306, Apiculture	3	(2)	3⅔
Bot. 401, Advanced Systematic	1	(6)	3	Physiol. 202, Advanced	3	(2)	3⅔
Ento. 303, Horticultural	3	(2)	3⅔	Zool. 402, Embryology	2	(4)	3⅓
				Chem. 304, Advanced Quantitative	2	(6)	4

EXACT SCIENCE

SOPHOMORE YEAR

FIRST SEMESTER

	Hours		Cr.
Eng. 201, Advanced Composition or			
Eng. 203, News-Writing	2		2
Chem. 201, Qualitative Analysis	2	(6)	4
Physics 201, General	3	(2)	3⅔
Math. 207, Analytics and Calculus	5		5
Physical Education (Women)		(3)	
Military Science		(3)	1

SECOND SEMESTER

	Hours		Cr.
Eng. 202, Advanced Composition or			
Eng. 204, News-Writing	2		2
Chem. 210, Qualitative Analysis	2	(6)	4
Physics 202, General	3	(2)	3⅔
Math. 208, Calculus	5		5
Physical Education (Women)		(3)	
Military Science		(3)	1

JUNIOR YEAR

FIRST SEMESTER

	Hours		Cr.
Chem. 311, Organic	3	(4)	4⅓
Foreign Language	3		3
Physics 393, Advanced	3	(3)	4
Math. 301, Differential Equations	3		3
Pub. Spk. 201	2		2

SECOND SEMESTER

	Hours		Cr.
Chem. 312, Organic	3	(4)	4⅓
Foreign Language	3		3
Physics 394, Advanced	3	(3)	4
Math. 302, Differential Equations	3		3
Hist. 306 or			
Edu. 412	2		2

SENIOR YEAR

FIRST SEMESTER

	Hours		Cr.
Chem. 401, Advanced Inorganic	3	(6)	5
Physics 403, Advanced	3	(3)	4
Foreign Language	3		3
Edu. 203, Psychology	3		3
Chem. 321, Geology	2		2

SECOND SEMESTER

	Hours		Cr.
Chem. 402, Physical	3	(6)	5
Physics 404, Advanced	2	(3)	3
Physics 420, Teaching of Physics	1		1
Edu. 204, Educational Psychology	3		3
Foreign Language	3		3
Math. 204, Astronomy	2		2

*GENERAL LITERATURE**

FRESHMAN YEAR

FIRST SEMESTER

	Hours		Cr.
Eng. 101, College	3		3
Chem. 101, Inorganic	3	(3)	4
Foreign Language	3		3
Math. 105, Algebra or			
Zool. 201, General	3	(4)	4⅓
Draw. 101, Freehand		(3)	1
Physical Education (Women)		(3)	
Military Science		(3)	1

SECOND SEMESTER

	Hours		Cr.
Eng. 102, College	3		3
Chem. 102, Inorganic	3	(3)	4
Foreign Language	3		3
Math. 108, Trigonometry or			
Econ. 201, Principles of Economics	3		3
Draw. 102, Freehand		(3)	1
Pub. Spk. 101, Essentials	2		2
Physical Education (Women)		(3)	
Military Science		(3)	1

SOPHOMORE YEAR

FIRST SEMESTER

	Hours		Cr.
Eng. 201, Advanced Composition or			
Eng. 203, News-Writing	2		2
Eng. 207, English Literature	3		3
Foreign Language	3		3
Hist. 205, English	3		3
Physics 105, General	3	(2)	3⅔
Physical Education (women)		(3)	
Military Science		(3)	1
Elective			1⅓

SECOND SEMESTER

	Hours		Cr.
Eng. 202, Advanced Composition or			
Eng. 204, News-writing	2		2
Eng. 208, Eng ish Literature	3		3
Foreign Language	3		3
Hist. 206, English	3		3
Physics 106, General	3	(2)	3⅔
Physical Education (women)		(3)	
Military Science		(3)	1
Elective			1⅓

SUGGESTED SOPHOMORE ELECTIVES

FIRST SEMESTER	Hours		Cr.	SECOND SEMESTER	Hours		Cr.
Foreign Language	3		3	Foreign Language	3		3
Agriculture	2	(4)	3⅓	or			
or				Agriculture	3		3
Home Economics	2	(4)	3⅓	Home Economics	3		3
Eng. 205, Current Literature	2		2	Eng. 206, Current Literature	2		2
Pub. Spk. 201, Debate	2		2	Math. 204, Astronomy	2		2
Chem. 311, Advanced Organic	3	(4)	4⅓	Pub. Spk. 202, Oratory	2		2
Physics 320 Lecture Course	2		2	Chem. 312, Advanced Organic	3	(4)	4⅓
Edu. 103, El. Psychology	3		3	Physics 430, Meteorology	2		2
Edu. 104, Hygiene	3		3	Edu. 106, Grade School Methods	3		3

JUNIOR YEAR

FIRST SEMESTER	Hours	Cr.	SECOND SEMESTER	Hours	Cr.
Eng. 303. American Literature	2	2	Eng. 304, American Literature	2	2
Foreign Language	3	3	Foreign Language	3	3
Hist. 307, United States	3	3	Hist. 308, United States	3	3
Edu. 421, Sociology	2	2	Edu. 203, General Psychology	3	3
Elective	5	5	Elective	4	4

SUGGESTED JUNIOR ELECTIVES

FIRST SEMESTER	Hours		Cr.	SECOND SEMESTER	Hours		Cr.
Foreign Language	3		3	Foreign Language	3		3
Eng. 307, Bible Literature	2		2	Pub. Spk. 302, Literary			
Pub. Spk. 301, Extempore	2		2	Interpretation	2		2
Bot. 101, General	2	(4)	3⅓	Edu. 422, Rural Sociology	2		2
Eng. 405, The Novel	2		2	Bot. 102, General	2	(4)	3⅓
Eng. 407, Masterpieces	2		2	Eng. 406, The Novel	2		2
Edu. 305, Hist. of Ed.	3		3	Eng. 408. Masterpieces	2		2
Edu. 204, Ed. Psychology	3		3	Edu. 310, Adolescence	2		2
Eng. 305, Eng. Language	2		2	Edu. 434, Social Psychology	2		2
Eng. 309, The Story	2		2	Eng. 302, Magazine Writing	2		2

SENIOR YEAR

FIRST SEMESTER	Hours	Cr.	SECOND SEMESTER	Hours	Cr.
Eng. 401, Carlyle and Ruskin	3	3	Eng. 404, Drama	3	3
Foreign Language	3	3	Foreign Language	3	3
Hist. 401, Modern Europe	3	3	Hist. 402, Modern Europe	3	3
Elective		7	Elective		6

SUGGESTED SENIOR ELECTIVES

FIRST SEMESTER	Hours		Cr.	SECOND SEMESTER	Hours		Cr.
Foreign Language	3		3	Foreign Language	3		3
Pub. Spk. 303, Oral English	2		2	Pub. Spk. 304, Debating Seminar	2		2
Zool. 401, General Biology	2	(4)	3⅓	Bact. 310, General	3	(4)	4⅓
Eng. 403, Romantic Movement	3		3	Eng. 402, Victorian Poets	3		3
Edu. 405, Ethics	2		2	Hort. 408, General	3	(2)	3⅔
Hist. 405, Government	3		3	Hist. 406, Political Theory	3		3
Edu. 316, H. S. Methods	3		3	Edu. 416, Teaching English	2		2
				Eng. 306, Lit. Appreciation	2		2

Three years of a foreign language will be required for graduation, two of these years' work being in the same language.

Where free electives are offered, students may substitute 8 credits in music and art toward graduation. Six hours of Education may be elected. See page 1 for laws governing teachers' certificates.

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DEPARTMENT OF BACTERIOLOGY AND ZOOLOGY

L. L. LEWIS. *Professor*
C. H. McELROY, *Associate Professor*
R. O. WHITENTON, *Associate Professor*
RUBY LAUDERDALE, *Assistant*
MABEL FOSTER, *Student Assistant*

The Department of Bacteriology and Zoology occupies quarters on the second floor of the Library Building. The equipment of mi-

croscopes, simple and compound; lanterns, microtomes, incubators, etc., is ample for the accommodation of all classes. The department is also well-equipped with dissectible models and skeletons as well as charts for both physiology and zoology. The department gives not only the work in bacteriology and zoology required in the science courses, but a large amount of teaching is required in other departments, as in the Schools of Agriculture, Home Economics, etc. The policy of the Department of Bacteriology and Zoology is to adapt the work to the needs of students coming from other schools of the College. The following work is offered by the department in the regular College courses:

SUBJECTS

202 BACTERIOLOGY. Class 2 hours, laboratory 4 hours. Credit 3⅓.

Prerequisite: Chem. 101, 102.

This course is designed as a general course in bacteriology for agricultural students. This course is required, and is a prerequisite for any of the advanced courses offered to agricultural students. Subject matter is such as to be of practical application in the work of agricultural students.

303 HOUSEHOLD BACTERIOLOGY. Class 2 hours, laboratory 4 hours. Credit 3⅓.

Prerequisite: Chem. 101, 102.
Required: Home Economics.

This course is given for the students in home economics, and as far as possible is made to apply to the work in which these students are most interested.

Text: "Household Bacteriology", Buchanan.

304 SANITARY SCIENCE. Class 2 hours, laboratory 4 hours. Credit 3⅓.

Prerequisite: Bact. 303 or 310.
Required in demonstration agents' work.

This work is designed to meet the needs of students preparing themselves for leadership as demonstration agents in agricultural work. Both the class and laboratory work will be selected with the idea of having the students see the application of the course to problems as they affect the home, school, community, etc.

310 GENERAL BACTERIOLOGY. Class 3 hours, laboratory 4 hours. Credit 4⅓.

Prerequisite: Chem. 101, 102.
Required: General science.
Elective: School of Commerce and Marketing, School of Education.

This course covers the general principles of the science and enables the student to understand the importance of bacteria as related to disease, their economy in nature and their relation to the various industries, such as dairying, soil fertility, fermentation, etc.

Text: Hiss and Zinser; Kendall.

311 DAIRY BACTERIOLOGY. Class 2 hours, laboratory 4 hours. Credit 3⅓.

Prerequisite: Bact. 310 or 202.
Required: Students in dairying.

Elective: All agricultural students, and Science and Literature.

A study of the bacteriology of milk and of milk products. Special attention will be given to sanitation and animal diseases as they may affect the milk supply.

Text: "Dairy Bacteriology", Russell and Hastings.

402 SANITARY SCIENCE. Class 3 hours. Credit 3.

Prerequisite: None.

Required: Civil engineering.

Elective: None.

This course is given especially to students in civil engineering. The course deals largely with water supply, sewage disposal and the different methods of treating sewage. Time is given at the beginning of the course to familiarize the student with the general nature and relationship of bacteria to disease.

403 TECHNICAL BACTERIOLOGY. Class 3 hours, laboratory 4 hours. Credit 4⅓.

Prerequisite: Bact. 310 or 202.

Required: Science and Literature.

Elective: School of Education.

This course is a continuation of 310 and deals more particularly with the relation of bacteria to disease processes. Work is offered in the production of vaccines, laboratory disagnosis, etc.

404 ADVANCED WORK IN IMMUNITY. Class 3 hours, laboratory 4 hours. Credit 4⅓.

Prerequisite: Bact. 403.

Required: Science and Literature.

Elective: Education.

This semester's work completes a year's work in technical bacteriology in which the student is given theoretical and practical training in work along sero-diagnostic and immunological lines. This course is intended to fit a student for taking up original problems in the subject in the capacity of an investigator or in the ever-broadening field of municipal work.

Text: Simon, Emery, Zinsser, Kolmer.

405 AGRICULTURAL BACTERIOLOGY. Class 2 hours, laboratory 4 hours. Credit 3⅓.

Prerequisite: Bact. 310 or 202.

Elective: Agriculture and Science and Literature.

This course is offered for the benefit of science students and the students of agriculture who may desire to familiarize themselves to some extent with the importance of bacterial activities to certain phases of argicultural work. Some industrial applications of bacteriology should be understood by students who have interested themselves in the science.

407-408 THESIS.

Conference one hour per week; laboratory work will vary, depending upon the character of the work. The credit will necessarily vary, depending upon the character of the work, but will not exceed 4 units for work submitted for a bachelor degree. The object of the course will be to have the student make practical application of bacteriological methods to research problems.

PHYSIOLOGY

202 ADVANCED PHYSIOLOGY. Class 3 hours, laboratory 2 hours. Credit 3⅔.

Prerequisite: Secondary School physiology and Freshman chemistry.

Required: Home Economics.
Elective: Science and Literature.
Particular attention is given to the physiology of nutrition and to hygiene.
Text: "Human Body", Martin.

315 COMPARATIVE PHYSIOLOGY. Class 2 hours. Credit 2.

Prerequisite: Vet. Sci. (Anatomy) 201.
Required: Animal Husbandry.
Elective: All agricultural students.
Special attention will be given to human as well as animal physiology. Normal functions of such organs of the animal body as are actively concerned in feeding, including digestion, and organs of elimination, as affect nutrition.
Text: "Veterinary Physiology", Smith.

ZOOLOGY

102 ECONOMIC ZOOLOGY. Class 2 hours, laboratory 4 hours. Credit 3⅓.

Required: Home Economics.
This course is a general survey of the animal kingdom with emphasis on economic value.
Text: "Economic Zoology", Daugherty.

201 GENERAL ZOOLOGY. Class 3 hours, laboratory 4 hours. Credit 4⅓.

Required: General Science and Education.
Elective: General Literature, Commerce and Marketing.
This course is designed to give an outline knowledge of the animal kingdom, as well as of the important biological laws. Representative types of the important phyla will be studied in the laboratory. The economic species and the principles underlying development will be especially emphasized.
Text: "College Zoology", Hegner.

207 GENERAL ZOOLOGY (for Agricultural students). Class 2 hours, laboratory 4 hours. Credit 3⅓.

Required: All agricultural students.
This course is similar to Zoology 201, but adapted to the needs of the students in agriculture.

210 VERTEBRATE ZOOLOGY. Class 2 hours, laboratory 4 hours. Credit 3⅓.

Prerequisite: Zool. 201 or equivalent.
Required: General science.
Elective: Education, Commerce and Marketing.
This course is primarily comparative anatomy in the laboratory work, but the lectures will deal with classification, distribution, etc., of the vertebrates with special emphasis on Oklahoma species.

401 GENERAL BIOLOGY. Class 3 hours, laboratory 2 hours. Credit 3⅔.

Prerequisite: Zool. 201.
Required: General science.
Elective: General literature, Education, Commerce and Marketing.
This course deals with the problems of variation, inheritance and evolution.
Text: "Evolutionary Biology", Dendy.

402 EMBRYOLOGY. Class 2 hours, laboratory 4 hours. Credit 3⅓.

Prerequisite: Zool. 201 or equivalent.
Required: Veterinary Medicine.
Elective: General science, Education, Commerce and Marketing.
This is a study of the development of vertebrates, using the chick and pig as types.

DEPARTMENT OF BOTANY

CHAS. O. CHAMBERS, *Professor*
ROBT. STRATTON, *Assistant Professor*
C. A. BRADSHAW, *Student Assistant*
J. T. CARTER, *Student Assistant*

In an agricultural college, botany is a fundamental study. Agriculture has to do chiefly with plants, and botany deals with plants in their broadest aspect; their relations to soil, climate and culture. It deals with the origin and distribution of plants in general; the origin and improvement of our cultivated plants; the laws of breeding and selection by which they have been brought to a higher state of perfection.

Plant physiology aims to show the relation of plant-life to chemistry and biological laws. Plant pathology acquaints us with the chief diseases which threaten our crops and play havoc in orchard, field and garden.

This department, located on the third floor of Morrill Hall, has classroom and laboratories well equipped to accommodate classes in all lines—microscopes, microtomes and reagents for classwork, charts and balopticon for lecture-room. An extensive herbarium of native Oklahoma species is being constantly increased.

The aim and purpose is to afford:

1. General culture and acquaintance with plant life.
2. A basis for agricultural and horticultural studies.
3. Training for those who expect to teach botany or agriculture in secondary schools.

SUBJECTS

101 GENERAL BOTANY. Class 2 hours, laboratory 4 hours. Credit 3⅓.

Elective: Education, general science and literature.

The principles of plant structure studied from the standpoint of function; an introduction to physiology, genetics and ecology.

Text: "College Botany", Gager.

102 GENERAL BOTANY. Class 2 hours, laboratory 4 hours. Credit 3⅓.

Prerequisite: Bot. 101.

General morphology of the principles natural groups of plants from the standpoint of evolution from the lower to high forms, their structure, habits and relationships; an introduction of systematic botany.

Text: "College Botany", Gager.

106 AGRICULTURAL BOTANY. Class 2 hours, laboratory 4 hours. Credit 3⅓.

Required of all agricultural students.

Fundamental principles of botany, with emphasis on the practical application of these principles.

Text: "Botany for Agricultural Students", Martin.

201 AGRICULTURAL BOTANY. Class 2 hours, laboratory 4 hours. Credit 3⅓.

Required of all agricultural students.

A continuation of Botany 106 with a survey of the plant groups in which the feed and food plants are found.

Text: Same as for Botany 106, Martin.

106 AND 201 SYSTEMATIC BOTANY. Class 1 hour, laboratory 6 hours. Credit 3.

Prerequisite: Bot. 101, 102 or 106 and 201.

A taxonomic study of flowering plants.

Text: "Manual Botany", Gray (Seventh Edition).

303 GENETICS. Class 3 hours. Credit 3.

Prerequisite: Bot. 102 or 206, or Zool. 201.

A study of the principles of variation, selection, heredity, and their application to animal and plant breeding.

Text: "Heredity", Lock.

304 PLANT PHYSIOLOGY. Class 2 hours, laboratory 2 hours. Credit 2⅔.

Prerequisite: Bot. 101, 102, or 106 and 201.

A study of the vital processes in the higher plants.

Text: "Plant Physiology", Duggar.

305 PATHOLOGY. Class 2 hours, laboratory 4 hours. Credit 3⅓.

A study of fungous diseases, both host and parasite.

Text: "Fungous Diseases of Plants", Duggar.

401 ADVANCED SYSTEMATIC BOTANY. Class 1 hour, laboratory 6 hours. Credit 3.

Prerequisite: Bot. 205.

A continuation of 205, with special emphasis on economic groups.

Text: "Manual of Botany", Gray (Seventh Edition).

410 TEACHING OF BOTANY. Class 1 hour. Credit 1.

For those who expect to teach botany.

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DEPARTMENT OF CHEMISTRY

HILTON IRA JONES, *Professor*
ROBERT DuBOIS, *Assistant Professor*
ALDO M. LIVINGOOD, *Assistant Professor*
GLADYS IRENE TREVITHICK, *Instructor*
CHARLES L. NICKOLLS, *Graduate Assistant*
CHARLES S. MOORE, *Graduate Assistant*
I. HAWTHORNE NELSON, *Storekeeper*

The purpose of the instruction in the Department of Chemistry is four-fold:

1. To meet the present demand for chemical engineers and trained analysts, and to lay a broad foundation for graduate study and a career in chemistry.

2. To prepare teachers of chemistry for the secondary schools.

3. To offer such courses in chemistry as are required by the various schools of the College.

4. To give a comprehension and appreciation of the scientific method and those fundamental processes so essential to any understanding of the phenomena of nature and the progress of human industry in order that the study may be worth while if simply taken for its cultural value.

The Department of Chemistry is housed in a new, modern laboratory erected and furnished by the Board of Agriculture. This furnishes approximately 14,000 square feet of floor space, providing lecture auditorium, small classrooms, separate laboratories for each of the chief branches of chemistry; library, storerooms, offices, rooms for research, and all the appurtenances found in the best modern laboratories. The entire furnishings and equipment are up to the standard of the building.

SUBJECTS

101 GENERAL INORGANIC CHEMISTRY. Class 3 hours, laboratory 3 hours. Credit 4.

Prerequisite: Elementary Physics.

A course dealing with the fundamental principles of the science. Lectures, written exercises and laboratory work.

Inorganic Chemistry is required of all Freshmen and is a prerequisite for all other courses in the department.

Note: Students who have received entrance credit for high school chemistry should enroll in Chemistry 103.

102 GENERAL INORGANIC CHEMISTRY. Class 3 hours, laboratory 3 hours. Credits 4.

Prerequisit Chemistry 101 or equivalent.

A continuation of 101 mainly devoted to the metals and the beginnings of qualitative analysis.

103 INORGANIC CHEMISTRY. Class 2 hours, laboratory 3 hours. Credit 3.

Prerequisite: One unit of entrance credit in Chemistry.

A course in General Chemistry for students who have had one year of high school chemistry.

Note: Students whose preparation proves to be inadequate for continuing this course will be required to change their registration to Chemistry 101.

104 INORGANIC CHEMISTRY. Class 2 hours, laboratory 3 hours. Credit 3.

Prerequisite: 103 or equivalent.

A continuation of 103, the latter part of the course being devoted to qualitative analysis.

201 QUALITATIVE ANALYSIS. Class 2 hours, laboratory 6 hours. Credit 4.

Prerequisite: Chem. 102, or its equivalent.

Required of Sophomores in the courses in general and exact science in the School of Science and Literature, and in the courses in Chemical Engineering. A course in both acid and basic analysis, with special emphasis placed upon the industrial phases of analysis and the fundamental theories underlying the same. Lectures, written exercises and laboratory work.

205 ELEMENTARY ORGANIC CHEMISTRY. Clsas 2 hours, laboratory 3 hours. Credit 3.

Required of all Sophomores in the School of Agriculture.

A course dealing with the chief types of organic compounds and their relation to foods and feedstuffs, and physiological processes. Lectures, written exercises and laobratory work.

206 QUANTITATIVE AGRICULTURAL CHEMISTRY. Class 2 hours, laboratory 6 hours. Credit 4.

Prerequisite: Chem. 201 or 207.

Required of all Sophomores in the School of Agriculture.

An elementary study of the simpler quantitative methods involving the care and use of the analytical balance, exercises in the gravimetric and volumetric analysis of pure substances of known composition; the preparation and standardization of volumetric solutions, atmosphere and its relation to plant growth, the analysis of soils, fertilizers and plant products. Lectures, reports, written exercises and laboratory work.

207 QUALITATIVE ANALYSIS. Class 1 hour, laboratory 3 hours. Credit 2.

Prerequisite: Chem. 102.

Required of Sophomores in the School of Agriculture.

A briefer course, dealing with the same subject matter and employing the methods indicated under 201.

210 GENERAL QUANTITATIVE ANALYSIS. Class 2 hours, laboratory 6 hours. Credit 4.

Prerequisite: Chem. 201.

Required of Sophomores in the courses in general and exact science in the School of Science and Literature, and in the courses in Chemical Engineering.

A general study of the fundamental analytical methods, both gravematric and volumetric, but without reference to any specific industry. Methods as in 206.

211-212 GENERAL ORGANIC CHEMISTRY. Class 3 hours, laboratory 4 hours. Credit 4⅓.

Prerequisite: General chemsitry.

Required of all Sophomores in the School of Home Economics.

A systematic study of the general principles of organic chemistry, with special reference to the application of organic chemistry to foods and human physiology.

311-312 ADVANCED ORGANIC CHEMISTRY. Class 3 hours, laboratory 4 hours. Credit 4⅓.

Prerequisite: Quantitative analysis.

Required of Juniors in the courses in general and exact science in the School of Science and Literature, and in the courses in Chemical Engineering.

A more extended and systematic treatment of the compounds of carbon than is possible in Chem. 211-212, together with appropriate discussions of the theories of reaction. The laboratory work includes a study of the synthesis and analysis of a large number of carbon compounds of interest in the arts and industries, including dyestuffs, perfumes and drugs.

313-314 PHYSIOLOGICAL CHEMISTRY. Class 3 hours, laboratory 4 hours. Credit 4⅓.

Prerequisite: Analytical and organic chemistry.

Elective for Juniors and Seniors in the Schools of Science and Literature

and Home Economics, and offered to all students prepared to take the work.

A study of the synthetic and analytical reactions that accompany the physiological changes in animals and plants. The chemical properties of food and body substances, and their general specific characteristics; the behavior of enzymes and their functions; the changes that take place in digestion, assimilation and elimination are among the topics considered.

321 GEOLOGY. Class 2 hours. Credit 2.

Prerequisite: General chemistry.

Required of Sophomores in the course in general literature, and Seniors in the course in exact science in the School of Science and Literature.

An introductory course including an elementary study of constructive and destructive forces, the origin of the soil, the materials of the earth's crust, and the manner of their occurrence; the chemical and mechanical changes brought about by geological agencies, and the surface features to which they give rise.

322 DETERMINATIVE MINERALOGY AND BLOWPIPE ANALYSIS. Class 1 hour, laboratory 4 hours. Credit 2½.

Prerequisite: Chem. 201, 207.

Required of Juniors in the Department of Civil Engineering.

A study of the physical properties of typical mineral species, and of the dry reactions of the elements, with their application to the identification of unknown minerals.

327 PETROLEUM TECHNOLOGY. Class 3 hours, laboratory 6 hours. Credit 5.

Prerequisite: General chemistry. Organic and analytical chemistry are highly desirable. Students must consult the instructor before registering for this course.

A study of the origin, occurrence and physical properties of petroleum, and of the laboratory methods for the estimation of the value of crude oil and the various products obtained by refining it, including specific gravity determinations, distillation methods, and special tests for acidity, sulphur, paraffin, asphalt, etc.; a discussion of the gas industry, and laboratory work in gas analysis.

401 ADVANCED INORGANIC AND PHYSICAL CHEMISTRY. Class 3 hours, laboratory 6 hours. Credit 5.

Prerequisite: General chemistry, and two semesters of quantitative analytical work.

A review of the theories considered in the more elementary courses, together with many others relating to thermo-chemistry, reaction, velocity, and equilibrium, with special reference to their application to the industries.

402 PHYSICAL CHEMISTRY. Class 2 hours, laboratory 6 hours. Credit 4.

Prerequisite: Organic chemistry; quantitative; Course 401 is especially recommended.

Offered to all students prepared to take the work.

A discussion of laws of gases, the kinetic theory, the phase rule, optical activity, and related topics; with laboratory practice in the determination of vapor densities, molecular weights by the freezing and boiling point methods, calculation of the degree of ionization, estimation of optical activity.

405-406 INDUSTRIAL CHEMISTRY. Class 3 hours, laboratory 9 hours. Credit 6.

Prerequisite: Chem. 304-305.

Required of Seniors in Chemical Engineering, and offered to all having the necessary preparation.

Lectures, recitations and conferences dealing with the applications of chemistry to the problems of manufacture, with laboratory practice in the analyses of both raw materials and factory products.

411-412 SPECIAL METHODS IN QUANTITATIVE ANALYSIS. Class 1 hour, laboratory 6 hours. Credit 3.

Prerequisite: Organic chemistry; quantitative.

Elective for Juniors and Seniors in the School of Science and Literature. Entrance for others to this cours eis only upon personal arrangement with the professor in charge.

A course presenting selected technical methods employed in—

(a) Gas Analysis
(b) Iron and Steel Analysis
(c) Fuel Analysis
(d) Wet and Fire Assay
(e) Water Analysis.

420 TEACHING OF CHEMISTRY. Class 1 hour. Credit 1.

Required of Seniors in the course in exact science in the School of Science and Literature, and elective for all others who have sufficient knowledge of the subject matter under discussion.

A series of conferences in which the methods and procedure in teaching general chemistry will be discussed in detail. Selections of subject matter for classwork and laboratory exercises, apparatus and equipment for class demonstrations, relation of class and laboratory work, choice of text and reference books, etc.

421-422 MASTER'S THESIS. Conference 1 hour, laboratory 10 to 20 hours. Credit in accordance with the amount of work done.

The work here indicated is of the nature of investigation, and is chiefly experimental, with the necessary reading and conferences. It is intended to familiarize the student with the methods used in independent work, and with an appreciation of the aims and objects of work in chemistry.

423-424 JOURNAL SEMINAR. 1 hour per week. Credit 1.

Required of all Seniors in Chemical Engineering, and of graduate students. All members of the staff are expected to attend. Reports on recent articles in American and foreign magazines, and discussion of chemical advances.

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DEPARTMENT OF ART

F. W. REDLICH, *Professor in Charge.*
DAISY D. McCOOL, *Instructor*
ELLA JACK, *Instructor*
KEYTE MADDEN, *Instructor*

The aim of the course in this department is to give training that is necessary for use in the practicum subjects of the College.

In the Freshman year the drawing is so planned as to correlate with coordinate studies, giving the elementary principles and their application in matters of everyday life.

Completed projects in artwork that meet a certain standard of excellence shall be placed by students at the disposal of the institution for a period of one year.

SUBJECTS

101 ART. Practice 3 hours. Credit 1.

Freehand drawing in accordance with fundamental principles of perspective and laws governing correct drawing; composition and color harmonies. Work includes the representation from observation of object and nature motifs, and involve the use of pencil, crayons and charcoal.

ART 107. Class 1 hour, practice 4 hours. Credit 2⅓.

Required of students enrolled in the School of Home Economics. To teach drawing in accordance with the fundamental principles of freehand perspective and laws governing correct drawing, composition, and color harmony. The theory and practice of design including various kinds of constructive arrangements and decorations.

Mediums used: Pencil, crayon, charcoal and water color.

104 ART. Practice 3 hours. Credit 1.

Prerequisite: Art 101.

A course of instruction required of students enrolled in Education dealing with problems of presenting Art, Art Instruction in secondary and grammar schools. Applied design suitable for public school work, blackboard illustrations, lectures, and assigned work dealing with history of Art.

107 ART. Class 1 hour. Laboratory 4 hours. Credits 2⅓.

Required of Home Economics students.

Study of the elements of design and the principles which control the use of color; with adaptation of natural motifs and study of design and color as applied to fabrics and other materials. Some class study will be made of masterpieces of the art and textile fields from these two standpoints.

111.ART—COMMERCIAL DRAFTING. Practice 3 hours. Credit 1.

A course of instruction required of students enrolled in Commerce and Marketing. To teach various kinds of lettering, applied to advertisements and posters. The principles of commercial compositions, elements of mechanical drafting involving the use of pencil, pen and ink and charcoal.

309 ART—COMMERCIAL ART. Practice 3 hours. Credit 1.

Prerequisite: Art 101.

To teach various kinds of lettering applied to posters, and the principles of commercial and pictorial compositions, involving the use of pencil, charcoal and water colors.

310 Art.—COMMERCIAL ART. Practice 3 hours. Credit 1.

Prerequisite: Art 309.

To teach color application in the development of pictorial and commercial compositions. Mediums: Charcoal, water colors and pen and ink.

409 ART.—PORCELAIN DECORATION. Practice 6 hours. Credit 2.

Prerequisite: Art 101.

Relating to fundamental principles of design and color with technique of china decoration.

410 ART—PORCELAIN DECORATION. Practice 6 hours. Credit 2.

Prerequisite: Art 409.

Advanced work in ceramics.

411 ART.—APPLIED ART. Practice 6 hours. Credit 2.

Prerequisite: Art 101.

A course of instruction involving applications of design, including work

in cardboard construction, book making, book binding, textile weaving, basket making, leather construction, and various applications of Craft work.

412 ART.—CLAY MODELING. Class 6 hours. Laboratory2 hours.

Prerequisite: Art 101.

To teach the study of form and construction with clay, involving the making of objects such as bowls, vases, jars and etc. A study of clay modeling for work in plaster paris and original projects in pottery.

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DEPARTMENT OF ENGLISH

N. W. ROCKEY, *Professor*
GRACE MOUNTCASTLE, *Assistant Professor*
STELLA PRIEST, *Assistant Professor*
VERDA V. WILBOURN, *Instructor*

JOURNALISM

LESTER C. GETZLOE, *Assistant Professor*

A number of improvements have been made recently which enable the Agricultural and Mechanical College to keep pace with the constantly increasing attention that is being paid to English in other institutions. New courses have been added to meet the special needs of students, and a very wide selection of courses is now made possible. Constant additions of books for reference and supplementary reading are provided by the library.

The aim of the department is two-fold: (1) To create such a love in the student for the best literature that he shall continue to read and enjoy it after his school days are over; (2) to teach the student to express himself clearly and forcibly in writing and speaking.

A fine new Library Building has been added to the Campus buildings this year and the English Department has shared generously in the extra large appropriation for books.

SUBJECTS

101, 102 COLLEGE. Class 3 hours. Credit 3.

Prerequisite: Completed preparatory English. 101 prerequisite to 102.

This course consists principally of the study and practice of the principles of composition. A thorough knowledge of the principles of grammar is essential. Frequent themes of various nature are required, and a study of classics is introduced. Emphasis is placed upon oral composition and individual conference and correction. Students are required to attain a high standard of self-expression. All students must have access to an unabridged dictionary, and are expected to own a "Webster's Collegiate Dictionary."

201-202 ADVANCED COMPOSITION. Class 2 hours. Credit 2.

Prerequisite: Eng. 101 and 102.

Advanced courses in composition, adapted to the needs of students, in sections to be arranged. Courses take up types of composition, and are supplemented by literature. Expository and argumentative types, first semester; descriptive and narrative the second.

203-204 NEWS-WRITING. Class 2 hours. Credit 2.

Prerequisite: Eng. 101, 102.

A study of the elements of news-writing and style form the basis of the work. Proper attention is given to writing leads, structure of news stories, reporting and gathering of news, interviewing, reporting speeches, and other forms of elementary journalism. Reporting is stressed the first semester, editing, proof reading, feature and publicity writing the second.

205-206 CURRENT LITERATURE. Class 2 hours. Credit 2.

Prerequisite: Eng. 101, 102.

A course offered as an aid to more intelligent magazine reading and to stimulate an interest in the best current literature.

Text: Current magazines and books.

207-208 ENGLISH LITERATURE. Class 3 hours. Credit 3.

Prerequisite: Eng. 101, 102.

A general survey. First semester work extends to the early Romantic Movement; second semester work, from Burns to Stevenson. The principal study is of the literature itself, but enough attention is given to the life of the author and the times in which he lived to enable the student to appreciate his work and influence. It is an introduction to literature and literary criticism, and, although it is elective to advanced students, those electing it early in their course will be enabled to pursue the more advanced courses with greater profit and success.

209 TECHNICAL WRITING. Class 2 hours. Credit 2.

Prerequisite: Eng. 101, 102.

This is an advanced course in composition adapted to the interests and needs of engineering students.

302 MAGAZINE AND BULLETIN WRITING. Class 2 hours. Credit 2.

Prerequisite: Eng. 203, 204.

An advanced course in writing for actual publication, technical and scientific material in a more popular form. Membership is limited and subject to the approval of the instructor.

303-304 AMERICAN LITERATURE. Class 2 hours. Credit 2.

Prerequisite: Eng. 101, 102.

This course covers a history of American literature in a more intensive manner than is possible in secondary schools. Attention will be given to literary periods and to the writings of the lesser as well as the greater American authors. Some comparison is made with English literature. Poetry occupies the first semester, prose the second.

305 ENGLISH LANGUAGE. Class 2 hours. Credit 2.

Prerequisite: Eng. 101, 102.

A college course in the structure of language, and aimed to advance and deepen the student's knowledge of grammar. Some attention is given to the historical development of forms and to word study.

306 LITERARY APPRECIATION. Class 2 hours. Credit 2.

Prerequisite: English 101, 102.

A course in literary appreciation and criticism.

307 BIBLE LITERATURE. Class 2 hours. Credit 2.

Prerequisite: Eng. 101, 102.

A literary study of the Bible.

309 THE STORY. Class 2 hours. Credit 2.

Prerequisite 101, 102.

A course in play and story writing. Open only on arrangement.

401 CARLYLE AND RUSKIN. Class 3 hours. Credit 3.

Prerequisite: Eng. 101, 102.

The assignment in this work varies from year to year. This year the following will be studied: Carlyle's "Sartor Resartus"; prose writings of other essayists, including Ruskin. Although not a prerequesite, students should have had English 207 and 208.

402 VICTORIAN POETS. Class 3 hours. Credit 3.

Prerequisite: Eng. 101, 102.

This course is designed to give students a comparatively thorough knowledge of one of the master poets of the Nineteenth Century. This does not exclude the consideration of other authors as an aid to the study of the author chosen. Tennyson or Browning is used for intensive study. Although not a prerequisite, students should have had English 207, 208.

403 ROMANTIC MOVEMENT IN ENGLISH POETRY. Class 3 hours. Credit 3.

Prerequisite: Eng. 101, 102.

About one-fourth of the time is devoted to Wordsworth, the remainder to Coleridge, Byron, Shelley and Keats. This course is supplemented by lectures and collateral readings, tracing the rise and develoment of the Romantic Movement. The work is based upon the complete work of each of the authors studied. By clubbing together the students have purchased the five volumes at a reasonable rate. Although not a prerequisite, students should have had English 207, 208.

404 THE DRAMA. Class 3 hours. Credit 3.

Prerequisite: Eng. 101, 102.

A study is made of the rise and development of the English drama, of the Elizabethan stage, and the conditions under which the great dramatist wrote. Specimens of early English plays and Shakespeare's plays are reported upon. and some attention is given to the later drama.

405-406 THE NOVEL. Class 2 hours. Credit 2.

Prerequisite: Eng. 101. 102.

In this course the development of the English novel into definiteness of form and purpose receives due emphasis, and the writers studied are treated as representatives of the life, the thought and literary movements of the times in which they lived. The earlier novels occupy the first semester, the later the second.

407-408 MASTERPIECES. Class 2 hours. Credit 2.

Prerequisite: Eng. 101, 102.

An intensive study of masterpieces to be selected by the instructor. This course serves those who wish to review and supplement their reading for high school teaching. as well as those who wish to increase their knowledge of great masterpieces. One term is usually devoted to the drama.

Note: See Education 416 for Teaching of English.

DEPARTMENT OF FOREIGN LANGUAGES

ALMON AI ARNOLD, *Professor*
MARY ELEANOR LOCKWOOD, *Instructor*
MARIA ESTER SOTO-CLARK, *Instructor*
MABEL HOLT, *Student Assistant*

The College offers a four-year course in modern and ancient languages.

The Secondary School of Oklahoma A. and M. College requires one year of some foreign language of all students. Students who are preparing for the School of Engineering must take two years of a foreign language.

The student is allowed to elect that course for which he is prepared.

As to which courses are required and which elective, see the courses of study outlined for each school.

SUBJECTS

SPANISH

101 ELEMENTARY COURSE. Class 3 hours. Credit 3.

Mastery of the forms of grammar; careful treatment of the pronunciation; emphasis on the most important irregular verbs, ser, estar, tener, haber and hacer.

Text: "A Brief Spanish Grammar", Ingraham-Edgren; "Elementary Spanish-American Reader", Berge-Soler and Hathaway.

102 ELEMENTARY COURSE. Class 3 hours. Credit 3.

Prerequisite: Course 101.

Emphasis on irregular verbs and most common idioms. Reading of about two hundred pages of modern prose.

Text: Same as for 101.

201 SECOND YEAR. Class 3 hours. Credit 3.

Prerequisite: Spanish 102.

Advanced prose composition; reading of standard authors.

Text: "Composition..; Broomhall's "Spoken Spanish"; Isaac's "Maria," by Keniston.

202 SECOND YEAR. Class 3 hours. Credit 3.

Prerequisite: Spanish 201.

Continuation of Course 201.

Text: Same composition as for Spanish 201. Spanish magazines. Alaracon's "El Capitan Veneno".

301 THIRD YEAR. Class 3 hours. Credit 3.

Prerequisite: Spanish 202.

Letter-writing and conversation.

Texts vary.

302 THIRD YEAR. Class 3 hours. Credit 3.

Prerequisite: Spanish 301.

A continuation of Course 301.

Texts vary.

401 ADVANCED COURSE. Class 3 hours. Credit 3.

Prerequisite: Spanish 302.

Reading of representative modern dramatists. Oral and written reports in Spanish. Class conducted in Spanish.

402 ADVANCED COURSE. Class 3 hours. Credit 3.

Prerequisite: Spanish 401.

Continuation of Course 401. Reading of representative modern novelists. Intensive study of Spanish pronunciation, based on Navarro Tomas' "La Pronunciacion Espanola."

FRENCH

101 ELEMENTARY COURSE. Class 3 hours. Credit 3.

Essentials of French grammar; the more common irregular verbs. Careful training in pronunciation.

Text: Fraser and Squair's Complete French Grammar; reading of Bruce's "Lectures Faciles."

102 ELEMENTARY COURSE. Class 3 hours. Credit 3.

Prerequisite: French 101.

Continuation of Course 101. Reading of 150 to 200 pages of prose. Emphasis on irregular verbs, idioms, and translation of easy French at sight.

Text: Fraser and Squaire's Complete French Grammar; Allen and Schoell's "French Life".

201 SECOND-YEAR FRENCH. Class 3 hours. Credit 3.

Prerequisite: French 102.

Prose composition, reading of standard authors.

Text: Carnahan's "Short French Review Grammar"; Merimee's "Colomba"; Labiche's "Le Voyage de M. Perrichon".

202 SECOND-YEAR FRENCH. Class 3 hours. Credit 3.

Prerequisite: French 201.

Continuation of Course 201.

Text: Daudet's "La Belle Nivernaise". Collateral readings. Sand's "La Mare au Diable", etc.

203 SCIENTIFIC FRENCH. Class 2 hours. Credit 2.

Prerequisite: French 102.

Text: Bowen's "Elementary Scientific Reader".

204 SCIENTIFIC FRENCH. Class 2 hours. Credit 2.

Continuation of Course 203.

Text: French scientific magazines.

301 MOLIERE. Class 3 hours. Credit 3.

Prerequisite: French 202.

A careful study of the works of Moliere; collateral readings.

Text: "Le Bourgeois Gentilhomme," etc.

302 RACINE AND CORNEILLE. Class 3 hours. Credit 3.

Prerequisite: French 301.

A study of the tragedies of Racine and Corneille.

Text: "Corneille's Le Cid"; "Horace", etc.

401 FRENCH DRAMA OF THE NINETEENTH CENTURY. Class 3 hours. Credit 3.

Prerequisite: French 302.

A study of the works of representative authors, such as Dumas, Augier, Hervieu.

Text: "La Question d' Argent", etc.

402 PHONETICS AND COMPOSITION. Class 3 hours. Credit 3.

Prerequisite: French 401.

Text: Geddes' "French Pronunciation"; Armstrong's "Syntax of the French Verb".

GERMAN

101 ELEMENTARY COURSE. Class 3 hours. Credit 3.

Mastery of inflections and of the elements of syntax. Reading of easy narrative prose. Composition and conversation based on reading.

Text: Harris' German Lessons and Muller and Wenckebach's Gluck Auf.

102 ELEMENTARY COURSE. Class 3 hours. Credit 3.

Prerequisite: Ger. 101.

Continuation of Course 101.

Text: Harris' German Lessons and Storm's Immensee.

201 SECOND YEAR. Class 3 hours. Credit 3.

Prerequisite: Ger. 102.

The course is planned primarily to give students facility in reading scientific German. One hour will be devoted to composition.

Text: Zschokke's Der Zerbrochene Krug; Dippold's Scientific German Reader; Philip S. Allen's German Composition.

202 SECOND YEAR. Class 3 hours. Credit 3.

Prerequisite: German 201. Composition and conversation. Reading of about two hundred pages of prose.

Text: Same as above and German scientific magazines.

301 MASTERPIECES IN GERMAN LITERATURE. Class 3 hours. Credit 3.

Prerequisite: German 202.

Oral and written reports in German on the works of the following authors: Lessing, "Minna von Barnhelm" and "Nathan der Weise"; Goethe, "Iphigenie auf Tauris" and "Egmont"; Schiller, "Wilhelm Tell" and "Die Jungfrau von Orleans."

302 MASTERPIECES IN GERMAN LITERATURE. Class 3 hours. Credit 3.

Prerequisite: German 301.

A continuation of Course 301. Studies of the following works will be made: Goethe's "Hermann und Dorotea"; Schiller's "Das Lied von der Glocke"; Scheffel's "Der Trompeter von Sackkingen", and Hauptman's "Die Versunkene Glocke".

LATIN

The Department of Foreign Languages meets the required Latin demands of law schools, medical schools, and the needs of prospective teachers of Latin in high schools. Upon petition and evidence of proper preparation, any desired Latin course will be given.

101 CAESAR. Class 3 hours. Credit 3.

Prerequisite: One year of Latin.

Three books of the Gallic War are read. Methods of translation are care-

fully taught until the student reaches the point where diligence alone will give mastery. Constant drills in forms, syntax and pronunciation.

102 CAESAR. Class 3 hours. Credit 3.

Prerequisite: Latin 101.

Two more books of the Gallic War are read. Drill in sight-reading. One hour a week is devoted to prose composition.

Text: "Composition", Allen and Phillips.

201 CICERO'S LETTERS AND ORATIONS. Class 3 hours. Credit 3.

Prerequisite: Latin 102.

A reading course with special attention to the life and personality of Cicero.

202 CICERO'S ESSAYS. Class 3 hours. Credit 3.

Prerequisite: Latin 201.

A study of the life, personality and philosophy of Cicero. Study of Cicero's style and prose compositions.

Text: Cicero's "De Senectute"; "De Amicitia".

303 VIRGIL'S AENEID. Class 3 hours. Credit 3.

Three books will be read. This will include a study of Latin poetry, especially the scansion of dactylic hexameter.

304 HORACE. Class 3 hours. Credit 3.

A continuation of Latin poetry. "The Odes from Horace" will be used as a basis.

403 TACITUS' GERMANIA AND AGRICOLA. Class 2 hours, composition 1 hour. Credit 3.

404 LIVY (Books XXI and XXII). Class 2 hours, composition 1 hour. Credit 3.

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DEPARTMENT OF HISTORY

A. S. HIATT. *Professor*

The study of history has two distinct but not incompatible aims. One of these is personal culture, the other is practical vocational value. Each of these standards is sought in both method and matter in different proportions to suit the various courses of the Agricultural and Mechanical College. The number of courses offered is limited by the technological character of the curricula. The newer conceptions of history prevail which treat the subject more for thought than for memory facts, minimize the details of wars, and stress ethical, political and industrial features. Special adaptations are made to reinforce the College work in agriculture and home economics. The College library contains many valuable sets of reference works, which are being added to from time to time.

SUBJECTS

205-206 HISTORY OF ENGLAND. Class 3 hours. Credit 3.

Required: General Literature course in School of Science and Literature, history and literature course in School of Education.

205 to the Stuarts. Rise of English national form. Anglo-Saxon institutions, advancement in democracy as roots of modern institutions.

206 British colonial, naval and commercial growth. Recent Britsh social legislation. Church. Background of English literature. The War of Nations.

306 INDUSTRIAL HISTORY OF THE UNITED STATES. Class 3 hours. Credit 3.

Required: Junior Home Economics, General Science, Exact Science.
Elective: Schools of Education.

Economic side of national growth emphasized rather than political. History of different industries, periods and movements, leading to survey of conditions of today. Adapted to home economic students.

307-308 HISTORY OF THE UNITED STATES. Class 3 hours each. Credit 3.

Prerequisite: Am. Hist. 31 and 32 (Government) in Secondary School, or equivalent.

Required: General Literature course of School of Science and Literature; history and literature course in School of Education.

To the presidency of Andrew Jackson. Colonial period as preparatory to nationality. Steps toward union, the dominant theme in the Revolution; critical period, and adoption and operation of the constitution. Social, industrial and educational features given due but secondary consideration.

308 Continuation of 307 to date. Political history basic. Financial and social phases not slighted. Enlargement of governmental activities, state and national, emphasized as characteristic of recent years. Aims to give insight into present-day problems. Current history utilized to give reality to past and to keep pace with the present.

401-402 MODERN EUROPE. Class 3 hours each. Credit 3.

Prerequisite: Anc. Hist. 21 and Mod. Hist. 22.

Should not be taken before 205, 206, 307, 308. Department may grant exception in part.

Required: General literature. School of Science and Literature; history and literature course in School of Education.

401 from 1500 to 1815. Sketch some earlier large events. The rise of the nations, the Papacy, Feudalism, Rennaissance and Reformation, French Revolution.

402 Continuation of 401 from 1815 to present. Political and social development. Traces complex conditions leading to War of Nations. Deals with large questions of nationalism, democracy and internationalism.

405 GOVERNMENT AND POLITICAL METHODS. Class 3 hours. Credit 3.

The object is to teach the actual methods of self-government; to make an impartial study of the methods by which political parties organize and conduct their campaigns, along with the improvements that might be made in party methods and in actual government.

406 POLITICAL THEORY. Class 3 hours. Credit 3.

A survey of the forms through which governments have evolved, of the principles of government, and of the actual practices of our American State and National Governments.

DEPARTMENT OF MATHEMATICS

CARL GUNDERSON, *Professor*
R. E HARTSOCK, *Associate Professor*

Work in college mathematics is required of all students in the School of Engineering, and in the divisions of exact science of the School of Science and Literature.

Courses 105, 108, 207, 208 are required of engineers, 205 of civil engineers, 105, 108 and 204 in general science, 105, 108, 204, 207, 208, 301 and 302 in exact science. The other courses are elective or optional.

SUBJECTS

105 COLLEGE ALGEBRA. Class 4 hours. Credit 4.

Prerequisite: One and one-half years of algebra and one year of plane geometry.

Variables and functions; binomial theorem; progressions; complex numbers; logarithms; limits; permutations and combinations.

Text: Reitz and Crathorne.

108 PLANE TRIGONOMETRY. Class 3 hours. Credit 3.

Prerequisite: Plane Geom. and Math. 105.

The development and use of trigonometric functions; relations between the functions; logarithms; solutions of triangles; application to practical problems throughout the course.

Text: Ashton and Marsh.

204 ASTRONOMY. Class 2 hours. Credit 2.

Prerequisite: High School Alg. and Geom.

The celestial sphere; reference lines and astronomical measurements; the solar system; laws of motion; evolution; stars; comets; nebulae; structure of the universe.

205 SPHERICAL TRIGONOMETRY. Class 1 hour. Credit 1.

Prerequisite: Solid Geom. and Math. 108.

Right and quadrantial triangles; oblique triangles.

Text: Ashton and Marsh.

207 ANALYTICAL GEOMETRY AND CALCULUS. Class 5 hours. Credit 5.

Prerequisite: Math. 108 and Solid Geom.

Cartesian and polar coordinates; equations and properties of straight lines and curves; introduction to calculus; limits; infinitesimals; rates; maxima and minima; partial differentiation.

Text: "Brief Course in Analytic Geometry", Tanner and Allen; "Calculus", March and Wolff.

208 CALCULUS. Class 5 hours. Credit 5.

Prerequisite: Math. 207.

Change in variable; integration; application of integration; multiple integrals; curvature; properties of curves; infinite series; Taylor's theorem, hyperbolic functions, indeterminate forms.

Text: "Calculus", March and Wolff.

301 DIFFERENTIAL EQUATIONS. Class 3 hours. Credit 3.
Prerequisite: Math. 208.
Solution of differential equations involving two variables.
Text: Murray.

302 DIFFERENTIAL EQUATIONS. Class 3 hours. Credit 3.
Prerequisite: Math. 301.
Continuation of Math. 301; ordinary differential equations with more than two variables; partial differential equations.
Text: Murray.

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DEPARTMENT OF PHYSICS

J. H. CLOUD, *Professor*
E. W. SCHUHMANN, *Assistant Professor*
LEONA SIEGLINGER, *Assistant*

Physics is the basic science which includes the fundamental laws and principles involved in all physical changes. The courses which follow give both a theoretical and practical treatment of the subject. Instruction is based on the material contained in carefully selected textbooks. This is supplemented by lectures illustrated by demonstrations and by lantern slides. The purpose is to give a training in exact reasoning, and a knowledge of principles that will aid in the solution of both scientific problems and those encountered in everyday life.

The laboratory work gives the student an opportunity to test the principal laws of the science. Special attention has been given to equipping the laboratory with modern apparatus which will give consistent experimental results. This work is carefully coordinated with the work of the classroom, and should enable the student to acquire skill in the manipulation and care of delicate apparatus.

The lecture-room is provided with terraced seats which permit the students to see the demonstrations performed on the lecture table. It is equipped with a combination lantern slide and opaque projectoscope which is used in illustrated lectures. The laboratory is well arranged for work, and the equipment provided is of such a nature that it meets the requirements of the different courses.

SUBJECTS

103 PHYSICS—MECHANICS, HEAT AND SOUND. Class 2 hours, laboratory 4 hours. Credit 3⅓.
Required of all students in home economics of the Freshman class.
Text: Kimball's "College Physics".

105 GENERAL PHYSICS—MECHANICS, HEAT AND SOUND. Class 3 hours, laboratory 2 hours. Credit 3⅔.
This course consists of two demonstration lectures in which lantern slides

and projections are used, one recitation, and one laboratory exercise per week. This course and the following, Physics 106, is suitable for students in the Schools of Agriculture, Commerce and Marketing, Education, and those who wish to study the subject for its practical training in the scientific method (the basis of all efficiency developments), and for aesthetic purposes.

Text: Kimball's "College Physics", revised edition.

106 GENERAL PHYSICS—MAGNETISM, ELECTRICITY AND LIGHT. Class 3 hours, laboratory 2 hours. Credit 3⅔.

Prerequisite: Physics 105, or the equivalent.
This course is the continuation of Physics 105.
Text: Kimball's "College Physics", revised edition.

201 ENGINEERING PHYSICS—MECHANICS, HEAT AND SOUND. Class 4 hours, laboratory 3 hours. Credit 5.

Prerequisite: College Alg. and Trig.
Required of all students in the School of Engineering of the Sophomore class.
Text: "College Physics", Reed and Guthe.

202 ENGINEERING PHYSICS—MAGNETISM, ELECTRICITY AND LIGHT. Class 4 hours, laboratory 3 hours. Credit 5.

Prerequisite: Physics 201, or the equivalent.
Required of all students in the School of Engineering of the Sophomore class.
This course is the continuation of Engineering Physics 201.

301 ELECTRICAL AND MAGNETIC MEASUREMENTS. Class 2 hours, laobratory 3 hours. Credit 3.

Prerequisite: Physics 201 and 202, or the equivalent.
Required of all students of the Junior class in electrical engineering.
Text: "Magnetism and Electricity for Advanced Students", Hadley.
Laboratory Manual: "Electrical Measurements", C. M. Smith.

302 ELECTRICAL AND MAGNETIC MEASUREMENTS. Class 1 hour, laboratory 3 hours. Credit 2.

Prerequisite: Physics 301.
This course is the continuation of 301, and it is required of all students of the Junior class in Electrical engineering.
Text: "Electrical Measurements", C. M. Smith.

303 ADVANCED PHYSICS—MECHANICS AND SOUND. Class 3 hours, laboratory 3 hours. Credit 4.

Prerequisite: Physics 301 or the equivalent.
Required of Junior class students in exact science.
Text: "General Physics for Advanced Students", Edser.

304 ADVANCED PHYSICS—HEAT AND THERMODYNAMICS. Class 3 hours, laboratory 3 hours. Credit 4.

Prerequisite: Physics 203, or the equivalent.
Required of Junior class students in exact science.
Text: "Heat for Advanced Students", Edser.

320 PHYSICS. Popular lectures 2 hours.

This course is for Sophomores, Juniors and Seniors of regular college standing. These lectures will be illustrated by lantern slides, projections and experiments. Assignments for general reading and a neat notebook on the lectures will be required.

403 ADVANCED PHYSICS—MAGNETISM, ELECTRICITY AND RADIOACTIVITY. Class 3 hours, laboratory 3 hours. Credit 4.

Prerequisite: Physic 201 and 202, or the equivalent.

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Required of Seniors in exact science.

Text: "Magnetism and Electricity for Advanced Students". Hadley.

Laboratory Manual: "Electrical Measurements", C. M. Smith.

404 ADVANCED PHYSICS—LIGHT AND RADIATION. Class 2 hours, laboratory 3 hours. Credit 3.

Prerequisite: Physics 201-202, or the equivalent.

Required of Seniors in exact science.

Text: "Light for Advanced Students", Edser.

420 TEACHING OF PHYSICS. Class 1 hour. Credit 1.

Prerequisite: Physics 105 or 106, or the equivalent.

Required of Seniors in the course in exact science in the School of Science and Literature, and elective to all others who have the prerequisite knowledge of the subject matter. The pedagogy of physics, in which the methods and procedure in teaching elementary physics will be discussed. Selection of subject matter for classwork and laobratory exercises, apparatus and equipment, choice of text and reference books will be discussed in detail.

430 METEOROLOGY. Class 2 hours. Credit 2.

Prerequisite: Physics 31 and 32, or the equivalent.

All students of college grade are eligible. It will consist of two lectures per week, illustrated by experiments and lantern slides. This course is a study of the physics of atmospheric changes and conditions which affect climate, seasons, storms, cyclones, weather maps and predictions, etc.

Text: "Elementary Meteorology". Frank Waldo.

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DEPARTMENT OF PUBLIC SPEAKING

D. T. MARTIN, *Professor*
LEO WERTZ *Student Assistant*

This department aims to make each student an intelligent reader and an effective speaker. It aids him to systematize, to correlate, and to express his knowledge gained through study and experience; it encourages concentration, stimulates logical thinking, and gives opportunity for self-expression. It teaches control of thought and action, which is the acme of all education.

Public speaking students are required to attend and to report upon certain public speaking contests and other public addresses given during the semester, and are urged to join a library society and to participate in some of the contests provided by the Oratorical Association.

The department has charge of the Amateur Dramatic Club. Its membership is open to students with histrionic ability. The club stages two plays each year.

Intercollegiate debaters and orators are privileged to become members of the Pi Kappa Delta honorary forensic fraternity.

Members of the Dramatic Club may become eligible to the Theta Alpha Phi Fraternity, a national dramatic society organized in 1919 by the A. and M. Dramatic Club.

SUBJECTS

101 ESSENTIALS OF PUBLIC SPEAKING. (Eight sections each semester Sections limited to fifteen students.) Class 2 hours. Credit 2.

This is an elementary course and a prerequisite to all other courses in public speaking. The fundamental principles of expression are emphasized through drills in correct breathing, tone production, voice modulations, and in the composition and the delivery of original speeches. A basis of self-criticism is effected enabling the student to continue improving his speech after completing the course. The work will be adapted to the present and future needs of each student.

201 ARGUMENTATION AND DEBATE. Class 2 hours. Credit 2.

A study of the principles of argumentation—analysis, evidence, proof, refutation and fallacies. Brief-drawing. Practical debating. Platform technique. Critical study of masterpieces of forensic oratory. Parliamentary drill.

202 ORATORY. Class 2 hours. Credit 2.

A study of the oration, the orator, and the audience. Analytical study of classic orations. Practice in the composition and the delivery of orations, formal speeches and occasional addresses. The psychology of the crowd in its relation to the public speaker. A brief history of oratory.

203 DRAMATIC ART. Class 2 hours. Credit 2.

Stage technique. Dramatic interpretation. Platform readings. Staging several one-act plays. Pageantry. Pantomime. Costuming. Making up. Scenery. Choosing, directing and rehearsing plays.

Essential for students interested in amateur theatricals, and for teachers who coach plays.

301 EXTEMPORE SPEAKING. Class 2 hours. Credit 2.

This course aims to cultivate in the student a fluent, forceful and effective presentation of his own thoughts to others. Daily practice will be given on assigned subjects previously mastered and outlined, though the diction of the speech is not memorized. Every student should learn to think while on his feet. This course affords an opportunity to become an effective platform speaker through a careful preparation and delivery of various forms of public address adapted to definite audineces.

302 LITERARY INTERPRETATION. Class 2 hours. Credit 2.

An advanced course in reading. Classical literature selections will be studied with a view to their vocal interpretation. Studies in the dramatic monologue, humorous, pathetic and dramatic productions will be read. Physical expression. Dialect readings.

303 ORAL ENGLISH. Class 2 hours. Credit 2.

A course designed for teachers of English in secondary schools. Standard literary classics will be interpreted orally. Emphasis will be placed on college entrance requirements in English. Methods of teaching oral English in secondary schools. Vocal technique. Voice defects—diagnosis and treatment. Story-telling. Criteria for judging contests.

304 SEMINAR IN DEBATING AND ORATORY. Class 2 hours. Credit 2.

An advanced course in debating and oratory. Designed for intercollegiate debaters, orators and their alternates.

THE SCHOOL OF EDUCATION

HERBERT PATTERSON, *Dean*

PURPOSE

The purpose of the School of Education is two-fold: First, to prepare superintendents, principals, supervisors and teachers for the public schools of Oklahoma; second, to enlarge the appreciation of the importance of the American public school system in the advancement of civilization. In furtherance of the first of these purposes, prescribed courses are offered leading to the attainment of the several kinds of teachers' certificates given in the State of Oklahoma; while in harmony with the second purpose, students enrolled in other schools of the College are allowed to elect courses in the School of Education.

HISTORY

Courses in Education were first given in 1909. The importance of teacher-training courses steadily gained emphasis, and in 1913 the School of Education was organized as a distinct school, coordinate in rank with other schools of the College.

COURSES

Numerous courses are given leading to the degrees of Master of Science and Bachelor of Science, and to the State Life High School Certificate, Special College Certificate, Special Certificate for Manual Training Teachers, and Grammar grade or Two-year Certificate.

THE EDUCATION SOCIETY

The Education Society of the Oklahoma Agricultural and Mechanical College is an organization composed of students in the School of Education. Frequent meetings are held, and practical problems relating to teaching as a vocation are discussed. The society has been instrumental in developing friendship among its members, and in emphasizing the importance of technical teacher-training.

EMPLOYMENT

Graduates of the School of Education experience no difficulty in securing employment at good salaries as teachers in some of the best schools in Oklahoma. For several years the demand has been far in excess of the supply. The School of Education helps its graduates in locating work as teachers.

DEGREES AND TEACHERS' CERTIFICATES

M. S. DEGREE IN EDUCATION

The degree of Master of Science in Education is granted to graduates whose major work is in the School of Education.. The general requirements for this degree are stated in the section of this catalog under the heading "Requirements for the Master's Degree".

In addition to fulfilling these general requirements, candidates for the degree of Master of Science in Education must present evidence of at least nine months' successful teaching.

B. S. DEGREE AND STATE LIFE HIGH SCHOOL CERTIFICATE

Students who complete the four-year course in the School of Education receive a Bachelor of Science degree and a State Life High School Certificate in Oklahoma.

> "Any graduate of any college organized under the laws of the State of Oklahoma, and operated in the State of Oklahoma, requiring a four years' college course for graduation, and which has entrance requirements equivalent to a four years' high school course, and maintaining a course in education equivalent to the course in education in the University of Oklahoma, said course to be approved by the State Board of Education, shall, upon application to the State Superintendent of Public Instruction, and making proof of graduation from any such college, and the completion of said course of study, be granted a life high school certificate of the same rank as is granted to the graduates of the State University for the same class of work."—School Laws of Oklahoma, 1919; Article I, Section 10.

SPECIAL COLLEGE CERTIFICATE

A special certificate will be granted by the State Board of Education to students completing at least two years' work of college grade including courses in psychology and education.

> "Students of the University of Oklahoma, the Oklahoma A. and M. College, or any approved college of the State of Oklahoma, who have earned credit for at least two years' work with courses in psychology and education, upon the recommendation of the president, may be granted a certificate valid for two years, which, when registered with the county superintendent of any county, shall be of equal standing with the first-grade county certificate, and shall be valid in independent districts when registered with the secretary of the board of education of such independent districts."—Rules and Regulations of the State Board of Education, July 1, 1919; page 18.

SPECIAL CERTIFICATE FOR MANUAL TRAINING TEACHERS

A Special Certificate is given by the Oklahoma Agricultural and Mecanical College to those who complete the two year course for manual training teachers.

GRAMMAR-GRADE, OR TWO-YEAR CERTIFICATE

Grammar-grade or two-year certificates will be granted by the State Board of Education to graduates of accredited high schools who have completed at least one year's work of college grade, including courses in psychology and education.

> "Students who have graduated from fully accredited high schools, and who have been admitted with at least 15 units to the University of Oklahoma, the Oklahoma A. and M. College, or any approved college organized under the laws of the State of Oklahoma, or one of the Oklahoma State Normal Schools, and who have done full work therein for one year or for three summer sessions, including courses in psychology and education, may be granted a State grammer-grade certificate valid for two years; provided, that notice of intention to apply for such a certificate is given at the beginning of the year's work."—Rules and Regulations of the State Board of Education, July 1, 1919; page 21.

CREDITS TOWARD TEACHER'S CERTIFICATE

When a subject is completed at the College, the certificate-granting authorities of the State accept that credit instead of an examination.

> "Any credit made in such college, which would entitle the holder thereof to graduation in that subject, may be substituted within three years from the time the credit is granted, in lieu of an examination in that subject on any teacher's certificate."—School Laws of Oklahoma, 1919; Article I, Section 11.

All subjects required for teachers' certificates are offered some time during the College year.

SUMMER SCHOOL COURSES

Courses in Education which will apply toward all grades of teachers' certificates are offered during the Summer School. Special attention is given to meeting the needs of rural teachers. An annual Summer School bulletin contains full announcement of the courses offered.

COURSE FOR NORMAL SCHOOL GRADUATES

Graduates from the State Normal Schools of Oklahoma and other normal schools of equal standing are admitted to junior standing in the School of Education and may complete the requirements for the B. S. degree and the State Life High School certificate in two years.

COURSES IN VOCATIONAL EDUCATION

In accordance with the provisions of the Smith-Hughes Act, courses are offered for the preparation of high school teachers of agriculture, of trades and industries, and of home economics. These courses are under the general supervision of the Oklahoma State Board of Vocational Education, whose executive staff has offices in the State capitol, Oklahoma City.

For teachers of agriculture in schools participating in the Smith-Hughes fund, the course must contain at least 40 semester hours of credit in agriculture and 15 semester hours of credit in education.

"Teachers of agriculture in schools participating in the Smith-Hughes fund shall, before employment, be approved by the State Board of Vocational Education, and shall be qualified as follows:

a Age, not less than 21 years.

b Education. The completion of a four-year course, given in or by an accredited agricultural college, or other accredited institution of college rank, requiring 15 high school units for admission and 120 semester-hours for graduation. The college course shall be such as to give at least 40 semester hours of credit in strictly technical or practical work in agriculture; not less than 12 hours of credit shall be in subjects allied to agriculture, and 15 hours in professional work in education, which shall be prescribed by the State Board of Vocational Education, and shall include 3 semester-hours in general psychology and 75 hours in supervised practice-teaching.

"c Experience. Not less than two full years of actual farm experience in labor or management, at least one of which shall have been continuous so as to give contact with farm conditions during all seasons.

"d Personality. In order to be approved, the applicant must have such personal qualifications as would fit him for leadership in the community, and for directing students in their school work and home projects.

"e Certification. No person shall be employed as a teacher of Vocational Agriculture in a school receiving State and Federal reimbursement until he shall have a teacher's certificate or diploma entitling him to teach in the State of Oklahoma, and shall have been approved by the State Board of Vocational Education for the teaching of Vocational Agriculture; and no Federal or State funds shall be used to pay any portion of the salary of any teacher of agriculture unless such teacher has been approved by the State Board of Vocational Education for the teaching of Vocational Agriculture."—Plans of the Oklahoma State Board of Vocational Education; Bulletin No. 3, 1919-20, pages 10-11.

For teachers of home economics in schools participating in the Smith-Hughes fund, the course must contain at least 40 semester-hours of credit in home economics and 13 semester-hours of credit in education.

"Qualifications of Teachers of Home Economics.

(1) Practical Experience.—The teacher must have had at least two years' actual experience with the practical problems of home economics, or her college course must have included a course in supervised home management under home conditions.

(2) Training in Home Economics.

The teacher of Vocational Home Economics must have graduated from a four-year home economics course in an approved college, or possess the qualifications equivalent to graduation.

(3) Professional Training.

The teacher of an all-day school must have spent, during her college course, at least 10 percent of her college hours in professional training, which should include special methods in home economics and practice-teaching."—Plans of the Oklahoma State Board of Vocational Education, Bulletin No. 3, 1919-20, pages 22-23.

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COURSES IN THE SCHOOL OF EDUCATION

The following outline of study represents the required and elective work in the School of Education. The courses are numbered, beginning with one hundred in the Freshman year; odd numbers, as 101, represent the first semester's work in the subject, and even numbers, as 102, the second semester's work. Subjects of the Sophomore, Junior and Senior years are numbered accordingly, two hundred for Sophomore, three hundred for Junior, and four hundred for Senior work. One hour of laboratory period is equivalent to one-third of a classroom period in estimating the number of hours per week to be taken.

The total requirements for graduation are 128 credits, exclusive of any credits given in physical education.

Sophomore electives are open to Juniors and Seniors where the necessary

prerequisite work is taken. Both Junior and Senior electives are open to either Juniors or Seniors.

In the outline below, figures without parenthesis indicate hours of class-work, in parenthesis hours of laboratory work.

Any student may elect the work of the Reserve Officers Training Corps, which counts 3 hours credit in each semester of the junior and senior years. This credit will be accepted as a substitute for elective work, or for required work by special arrangement.

LEADING TO B. S. DEGREE AND STATE LIFE HIGH SCHOOL CERTIFICATE

FRESHMAN YEAR

FIRST SEMESTER	Hours		Cr.
Econ. 201, Principles	3		3
Eng. 101, College	3		3
Chem. 101, Inorganic	3	(3)	4
Edu. 103, School Hygiene and Management	3		3
Draw. 101, Public School Drawing		(3)	1
Physical Education		(3)	
Military Science		(3)	1

SECOND SEMESTER	Hours		Cr.
Zool. 201, General	3	(4)	4⅓
Eng. 102, College	3		3
Chem. 102, Inorganic	3	(3)	4
Edu. 106, Methods of Teaching Common Branches	3		3
Edu. 108, Public School Music	2		2
Draw. 104, Public School Drawing		(3)	1
Physical Education		(3)	
Military Science		(3)	1

SOPHOMORE YEAR

FIRST SEMESTER	Hours		Cr.
Edu. 203, General Psychology	3		3
Eng. 207, English Literature	3		3
Hist. 307, United States	3		3
Pub. Spk. 101, Essentials	2		2
Physical Education (Women)		(3)	
Military Science		(3)	1
Elective (major subjects)	4		4

SECOND SEMESTER	Hours		Cr.
Edu. 204, Educational Psychology	3		3
Eng. 208, English Literature	3		3
Hist. 308, United States	3		3
Physical Education (Women)		(3)	
Military Science		(3)	1
Elective (major subjects)	5		5

JUNIOR YEAR

FIRST SEMESTER	Hours		Cr.
Edu. 305, History of Education	3		3
Eng. 201, Advanced Composition	2		2
Pub. Spk. 201, Argumentation and Debate or			
Pub. Spk. 203, Dramatic Art	2		2
Physics 105, General (men)	3	(2)	3⅔
H. E. 105, Textiles and Clothing (women)	2	(3)	3
Elective (major subjects)	6		6

SECOND SEMESTER	Hours		Cr.
Edu. 316, Methods of Teaching in High School	3		3
Edu. 310, Psychology of Adolescense	2		2
Eng. 202, Advanced Composition	2		2
Physics 106, General (men)	3	(2)	3⅔
H. E. 106, Textiles and Clothing (women)	2	(3)	3
Elective (major subjects)	6		6

SENIOR YEAR

FIRST SEMESTER	Hours		Cr.
Edu. 425, Observation and Practice Teaching	1	(3)	2
Edu. 423, Educational Measurements	1	(3)	2
Hist. 401, Modern Europe	3		3
Edu. 421, General Sociology	2		2
Elective (major subjects)	3		3
Elective	4		4

SECOND SEMESTER	Hours		Cr.
Edu. 426, Observation and Practice Teaching	1	(3)	2
Edu. 408 School Administration	2		2
Hist. 402, Modern Europe	3		3
Elective (major subjects)	3		3
Elective	6		6

Two Major Subjects Required.—In addition to the prescribed courses, students are required to elect at least 15 semester-credits of work in each of two of the following departments: Agriculture, Botany and Zoology, Chemistry, Commerce and Marketing, Drawing and Art, English and Public Speaking, French, History and Economics, Home Economics, Latin, Manual Training, Mathematics, Music, Physics, and Spanish. These courses must be approved by the heads of the departments involved, and by the Dean of the School of Education. Students should select their major subjects not later than the beginning of the Sophomore year.

Men who have not studied agriculture or manual training in high schools, are requried to elect a year's work in one of these subjects.

COURSE FOR GRADUATES OF OKLAHOMA STATE NORMAL SCHOOLS

LEADING TO B. S. DEGREE AND STATE LIFE HIGH SCHOOL CERTIFICATE

JUNIOR YEAR

FIRST SEMESTER	Hours		Cr.	SECOND SEMESTER	Hours		Cr.
Pub. Spk. 201, Argumentation and Debate				Edu. 316, Methods of Teaching in High School	3		3
or				Edu. 310, Psychology of Adolescence	2		2
Pub. Spk. 203, Dramatic Art	2		2	Eng. 202, Advanced Composition	2		2
Eng. 201, Advanced Composition	2		2	Physics 106, General (men)	3	(2)	$3\frac{2}{3}$
Zool. 201, General	3	(4)	$4\frac{1}{3}$	H. E. 106, Textiles and Clothing (women)			
Physics 105, General (men)	3	(2)	$3\frac{2}{3}$	or			
H. E. 105, Textiles and Clothing (women)				H. E. 204, Food Study (women)	2	(3)	3
or				Elective (major subjects)	5		5
H. E 203, Food Study (women)	2	(3)	3				
Elective (major subjects)	5		5				

SENIOR YEAR

FIRST SEMESTER	Hours		Cr.	SECOND SEMESTER	Hours		Cr.
Edu. 425, Observation and Practice-Teaching	1	(3)	2	Edu. 426, Observation and Practice-Teaching	1	(3)	2
Edu. 423, Educational Measurements	1	(3)	2	Edu. 408, School Administration	2		2
Edu. 421, General Sociology	2		2	Elective (major subjects)	10		10
Elective (major subjects)	10		10	Elective	2		2

Two Major Subjects Required.—In addition to the prescribed courses, students are required to elect at least 15 semester-credits of work in each of two of the following departments: Agriculture, Botany and Zoology, Chemistry, Commerce and Marketing, Drawing and Art, English and Public Speaking, French, History and Economics, Home Economics, Latin, Manual Training, Mathematics, Music, Physics, and Spanish. These courses must be approved by the heads of the departments involved and by the Dean of the School of Education. Students must select their major subjects at the beginning of the Junior year.

Men who have not studied agriculture or manual training in high school are required to elect a year's work in one of these subjects.

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COURSE FOR TEACHERS OF AGRICULTURE LEADING TO B. S. DEGREE AND STATE LIFE HIGH SCHOOL CERTIFICATE

Men in the School of Education desiring to qualify as teachers of agriculture in high schools are required to complete the regular course for B. S. degree and State Life High School Certificate.

Agriculture Required as Major Subject.—Instead of electing two major subjects, these men are required to complete at least 40 semester-credits in the School of Agriculture.

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COURSE FOR SPECIAL COLLEGE CERTIFICATE

The courses in psychology and education required for this certificate are Edu. 103, Edu. 106, and Edu. 104 or Edu. 203. Two years of regular college work with an aggregate of at least 64 semester-credits, including the education courses, is required.

COURSE FOR MANUAL TRAINING TEACHERS LEADING TO SPECIAL CERTIFICATE

The following two-year course of instruction has been planned to prepare teachers of Manual Training. More than one hundred and ten school plants in Oklahoma have shopwork and require more than two hundred teachers to man them. This means that there is a steady demand in this State for well prepared teachers of Manual Training. Upon completion of the course outlined below, a student will be given a special certificate for Manual Training Teachers. While many Superintendents prefer that a Manual Training Teacher should be a college graduate, holders of this certificate will be qualified to teach in most schools of the State.

FRESHMAN YEAR

FIRST SEMESTER	Hrs.		Cr.	SECOND SEMESTER	Hrs.		Cr.
Eng. 101. College	3		3	Eng. 102 College	3		3
Chem. 101, Inorganic	3	(3)	4	Chem. 102 Inorganic	3	(3)	4
Edu. 103, School Hygiene and Management	3		3	Pub. Spk. 101, Essentials	2		2
Shop 111, Benchwork		(4)	1⅓	Shop 112 Cabinet Making		(4)	1⅓
Shop 113 Mechanical Drawing		(4)	1⅓	Shop 114 Mechanical Drawing		(4)	1⅓
Shop 115 Care of Equipment	1	(2)	1⅔	Shop 116 Shop Design	1	(2)	1⅔
M. E. 101 Engineering Drawing		(6)	2	M. E. 104 Descriptive Geometry	3	(3)	4
Physical Education		(3)		Physical Education		(3)	
Military Science		(3)	1	Military Science		(3)	1

SOPHOMORE YEAR

FIRST SEMESTER	Hrs.		Crs.	SECOND SEMESTER	Hrs.		Cr.
Edu. 203 General Psychology	3		3	Edu. 204 Educational Psychology	3		3
Edu. 207 Methods of Teaching Manual Training	2	(2)	2⅔	Edu. 208 Method of Teaching Manual Training	2	(2)	2⅔
Eng. 201 Advanced Composition	2		2	Eng. 202 Advanced Composition	2		2
Physics 105, General	3	(2)	3⅔	Physics 106, General	3	(2)	3⅔
Shop 205 Agricultural Forging		(3)	1	Shop 206 Art Forging		(4)	1⅓
Shop 207 Wood Turning		(4)	1⅓	Shop 208 Advanced Cabinet Making		(4)	1⅓
Shop 203 Foundry		(3)	1	Shop 302 Machine Shop		(4)	1⅓
Military Science		(3)	1	Military Science		(3)	1
Elective	2		2	Elective	2		2

Graduates of this course will be granted Junior standing in the School of Education, and can complete the course for the B. S. Degree in two years.

COURSE FOR GRAMMAR-GRADE OR TWO-YEAR CERTIFICATE

The courses in psychology and education required for this certificate are Edu. 103, Edu. 106 and Edu. 104. One year of regular college work with an aggregate of at least 32 semester-credits, including the education courses, is required.

FACULTY

HERBERT PATTERSON, *Professor of Education*
FRED McCARREL, *Assistant Professor of Education*
S. L. REED, *Assistant Professor of Education*
C. L. KEZER, *Supervisor of Practice Teaching*
DEWITT HUNT, *Superintendent of Shops.*
N. W. ROCKEY, *Professor of English*
ELIZABETH MOREHARDT, *Instructor in Voice*
J. H. CALDWELL. (*Summer 1920*)
MRS. FRED McCARREL, (*Summer 1920*)

SUBJECTS

EDUCATIONAL PSYCHOLOGY

104 EDUCATION—ELEMENTARY PSYCHOLOGY. Class 3 hours. Credit 3 or 1.

When taken later than the Sophomore year, the credit is 1 hour.
Required of candidates for the grammar-grade or two-year certificate.
An introductory course in human psychology, especially adapted to the needs of prospective teachers in elementary schools.

203 EDUCATION—GENERAL PSYCHOLOGY. Class 3 hours. Credit 3.

Not open to Freshmen.
Required of Sophomores in the School of Education.
A systematic course in the fundamental principles of physiological psychology.

204 EDUCATION—EDUCATIONAL PSYCHOLOGY. Class 3 hours. Credit 3.

Prerequisite: Edu. 203.
Required of Sophomores in the School of Education.
A course dealing with the applications of physiological psychology to educational problems.

309 EDUCATION—PSYCHOLOGY OF CHILDHOOD. Class 2 hours. Credit 2.

Prerequisite: Edu. 203.
A study of physiological and psychological development during the period of childhood, with special emphasis upon child problems facing parents and elementary school teachers.

310 EDUCATION—PSYCHOLOGY OF ADOLESCENCE. Class 2 hours. Credit 2.

Prerequisite: Edu. 203.
A study of physiological and psychological development during the period of adolescence, with special emphasis upon problems facing parents and high school teachers.

311 EDUCATION—EXPERIMENTAL PSYCHOLOGY. Class 1 hour, laboratory 3 hours. Credit 2.

Prerequisite: Edu. 203.
An introductory course in laboratory psychology. Individual and group experiments upon typical psychological problems.

312 EDUCATION—EXPERIMENTAL EDUCATION. Class 1 hour, laboratory 3 hours. Credit 2.

Prerequisite: Edu. 311.
The methods and results of typical experiments in the several fields of experimental education, illustrated by individual and group experiments.

420 EDUCATION—MENTAL TESTS. Class 1 hour, laboratory 3 hours. Credit 2.

Prerequisite: Edu. 203 and Edu. 204.
A quantitative study of psychical processes with practice in the giving of several of the more standard forms of intelligence tests.

434 EDUCATION—SOCIAL PSYCHOLOGY. Class 2 hours. Credit 2.

Prerequisite: Edu. 203.
A study of human nature from the standpoint of social behavior.

EDUCATIONAL PHILOSOPHY

305 EDUCATION—HISTORY OF EDUCATION. Class 3 hours. Credit 3.

Not open to Freshmen.

Required of Juniors in the School of Education.

The history of educational ideals and practices, with special emphasis upon the modern periods.

307 EDUCATION—RURAL EDUCATION. Class 2 hours. Credit 2.

Given regularly in Summer School.

The special problems of education in the country, with a detailed study of school consolidation and the county unit of administration.

314 EDUCATION—EDUCATIONAL CLASSICS. Class 2 hours. Credit 2.

Prerequisite: Edu. 305.

A first-hand acquaintance with some of the educational literature of Plato, Rousseau, Spencer, Hall and Dewey.

405 EDUCATION—ETHICS AND MORAL EDUCATION. Class 2 hours. Credit 2.

Open to Juniors and Seniors.

A study of fundamental moral principles and their application to education.

407 EDUCATION—PHILOSOPHY OF EDUCATION. Class 2 hours. Credit 2.

An advanced course intended especially for graduate students in the School of Education.

A comparative study of the leading philosophies of education of recent times, including idealism, naturalism and pragmatism.

421 EDUCATION—GENERAL SOCIOLOGY. Class 2 hours. Credit 2.

Open to Juniors and Seniors.

Required of Seniors in the School of Education.

A brief survey of functional sociology with special emphasis upon the home and the school as examples of social institutions.

422 EDUCATION—RURAL SOCIOLOGY. Class 2 hours. Credit 2.

Not open to Freshmen.

A study of sociological conditions and problems in rural life.

431 EDUCATION—VOCATIONAL EDUCATION. Class 2 hours. Credit 2.

Prerequisite: Edu. 203.

A brief history of the vocational ideal in education, together with a study of current problems in vocational guidance and training.

EDUCATIONAL ADMINISTRATION

103 EDUCATION—SCHOOL HYGIENE AND MANAGEMENT. Class 3 hours. Credit 3 or 1.

When taken later than the Sophomore year the credit is 1 hour.

Required of Freshmen in the School of Education, candidates for the special college certificate, and candidates for the grammar-grade or two-year certificate.

The application of physiological laws to education, together with a study of classroom management.

408 EDUCATION—SCHOOL ADMINISTRATION. Class 2 hours. Credit 2.

Prerequisite: Edu. 316.

Required of Seniors in the School of Education.

A course dealing with typical problems of high school principals and superintendents of public school systems.

423 EDUCATION—EDUCATIONAL MEASUREMENTS. Class 1 hour, laboratory 3 hours. Credit 2.

Prerequisite: Edu. 203 and 204.

Required of Seniors in the School of Education.

A study of some of the more important quantitative standards used in measuring progress in school subjects, including practice in their use.

501 EDUCATION—SEMINAR IN EDUCATION. Class 2 hours. Credit to be arranged.

An advanced course intended especially for graduate students in the School of Education.

Thesis problems of individual students are reported upon and discussed.

502 EDUCATION—SCHOOL SURVEYS. Class 2 hours. Credit to be arranged.

An adavnced course intended especially for graduate students in the School of Education.

An intensive study of typical educational surveys.

EDUCATIONAL METHODS

106 EDUCATION—METHODS OF TEACHING THE COMMON BRANCHES. Class 3 hours. Credit 3 or 1.

When taken later than the Sophomore year, the credit is 1 hour.

Required of Freshmen in the School of Education, candidates for the special college certificate, and candidates for the grammar-grade or two-year certificate.

A course dealing with special methods of teaching the subjects in the curriculum of elementary schools.

108 EDUCATION—METHODS OF TEACHING MUSIC IN ELEMENTARY GRADES. Class 2 hours. Credit 2.

Required of Freshmen in the School of Education.

A course dealing with modern methods of teaching music in elementary grades.

205 EDUCATION—METHODS OF TEACHING IN PRIMARY GRADES. Class 2 hours. Credit 2.

Given regularly in Summer School.

A study of general and special methods used in the first three grades, with some attention to kindergarten methods.

207. EDUCATION—METHODS OF TEACHING MANUAL TRAINING. Class 2 hours. Practice 2 hours. Credit 2⅔.

Required of sophomores taking course for manual training teachers. Lectures on methods of teaching and organization of the subject matter are given each week, and students are required to assist in shop classes two hours each week for practice teaching.

208 EDUCATION—METHODS OF TEACHING MANUAL TRAINING. Class 2 hours. Practice 2 hours. Credit 2⅔.

Required of sophomores taking course for manual training teachers. A

continuation of Education 207. Attention is given to the history of manual training, shop plans, tool lists, and courses of study.

316 EDUCATION—METHODS OF TEACHING IN HIGH SCHOOL. Class 3 hours. Credit 3.

Prerequisite: Edu. 203.

Required of Juniors in the School of Education.

A course dealing with special methods of teaching the subjects in the high school curriculum, together with some general principles of high school education.

416 EDUCATION—METHODS OF TEACHING ENGLISH IN HIGH SCHOOL. Class 2 hours. Credit 2.

Open to Juniors and Seniors with prerequisites in English.

This course should be taken by prospective teachers of English in high school.

425 EDUCATION—OBSERVATION AND PRACTICE-TEACHING. Class 1 hour, laboratory 3 hours. Credit 2.

Required of Seniors in the School of Education.

Students in the School of Education are required to do observation and practice-teaching in the two subjects in which they are majoring. The Secondary School of the Oklahoma A. and M. College is used for this purpose, and the work is under the supervision of the Principal of the Secondary School. Students should arrange with him for their hours for observation and practice-teaching before enrolling in the course.

426 OBSERVATION AND PRACTICE-TEACHING. Class 1 hour, laboratory 3 hours. Credit 2.

Required of Seniors in the School of Education.

A continuation of Edu. 425.

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SUMMER SCHOOL

HERBERT PATTERSON, *Director*

CALENDAR

Registration, Tuesday, May 31, 8:00 a. m. to 5:00 p. m.

Classes begin Wednesday, June 1, 8:00 a. m.

Convocation Thursday, June 2, 9:00 a. m.

National holiday, Monday July 4.

Final examinations, Wednesday and Thursday, July 27 and 28.

Summer School closes Friday, July 29.

FACULTY

The regular College professors and instructors furnish the instruction during the Summer School. This insures excellent teaching.

HISTORY

For thirteen years the Summer School has been an important part of the service the Oklahoma A. & M. College has been rendering to the State of Oklahoma. The first Summer School was held in 1903 with an enrollment of 191. Since then the enrollment has

steadily increased, as indicated by the following figures:

ENROLLMENT IN SUMMER SCHOOL

1908, 191; 1909, 222; 1910, 266; 1911, 346; 1912, 307; 1913, 322; 1914, 402; 1915, 492; 1916, 520; 1917, 395; 1918, 421; 1919, 576; 1920, 660.

PURPOSE

The Summer School is intended to meet the needs of the following classes of people:

Teachers who are seeking to improve in their work and are able to attend College during the summer months only. There are unusual opportunities offered by the Oklahoma A. and M. College for those preparing to teach agriculture, home economics and manual training, as well as the academic subjects of the high schools and grades. College credits toward graduation and the bachelor's degree may be secured by teachers at the same time that they are increasing their ability as teachers.

Prospective teachers, and teachers who wish to secure credits to be applied toward the various teachers' certificates granted in the State of Oklahoma. All studies are offered which are required for teachers' first, second and third-grade certificates. When credit is earned in any of these subjects, county superintendents will accept credits in place of an examination in such subjects.

Students who desire to shorten their college course. A wide variety of regular college credit courses is given during the summer.

TERMS OF ADMISSION

There are no entrance requirements for teachers and those who are preparing to teach.

Those taking work toward graduation from College will be governed by the rules of the College relating to admission and degrees, as stated elsewhere in this catalog.

CREDITS

In order to complete regular semester subjects during the nine weeks of Summer School, the number of class hours in each subject is doubled. Students are expected to select a program of studies similar in amount to that of the regular College year. The number of hours taken may vary from 12 to 20. The maximum credit allowed for summer work is 10 semester-credits in College work and 1½ units in Secondary School work.

TEACHERS' EXAMINATIONS

The regular State examinations for third-grade or one-year certificates for teachers are given at the College. These examinations are supervised by the College instructors, but all fees and papers are forwarded to county superintendents. Teachers should consult their county superintendents in regard to their examination papers and grades. The certificates secured by taking these examinations at the Oklahoma A. and M. College are accepted in any county in the State of Oklahoma.

TEACHERS' EMPLOYMENT BUREAU

The free services of the Teachers' Employment Bureau are available for teachers, prospective teachers, superintendents and school boards. Blanks for this purpose are found in the Secretary's office, Morrill Hall.

EXPENSES

Matriculation Fee.—All students registering for any work are required to pay $2.50 to cover all general charges except swimming. No refund is made.

Rooms in Woman's Building or Boys' Dormitory.—Attractive furnished rooms with all modern conveniences may be had in the Woman's Building or the Boys' Dormitory at $5.00 per month for each person, two in a room. Application for these rooms should be made in advance to the Registrar.

Rooms With Private Families.—Furnished rooms can be obtained in Stillwater at from $5.00 to $10.00 a month, when two occupy the room.

The College Cafeteria.—Board at the College Dining Hall is provided on the cafeteria plan at actual cost. Each student pays for what he selects, and the cost varies according to the amount he eats. The average cost at present is about 30 cents a meal. The cafeteria plan provides opportunity for a larger menu from which to choose, and in general is more satisfactory than the plan of having a set table and no choice.

SUMMER SCHOOL BULLETIN

An illustrated Summer School bulletin, giving detailed information regarding the courses offered will be sent upon request. Inquiries concerning the Summer School should be addressed to the Director of the Summer School.

THE SCHOOL OF COMMERCE AND MARKETING

FRED D MERRITT, *Acting Dean and Professor of Economics*
S. C. BEDINGER, *Professor of Law*
WILLARD RUDE, *Assistant Professor of Secretarial Training*
L. M. GRAVES, *Assistant Professor of Economics and Finance*
G. H. BUTTS, *Assistant Professor of Accounting*
ANNIE FRANCIS, *Instructor in Secretarial Training*
MRS. CHARLES R. ZEARS, *Instructor in Secretarial Training*

The School of Commerce and Marketing offers four years of work leading to a bachelor of science degree.

The school has two purposes. One is to prepare for business management. The other is to train for technical business branches, such as accounting, advertising, traffic and statistical work.

Business has come to be a profession requiring as careful training as law and medicine. No longer can guesswork carry the manager through the maze of shifting commercial conditions. His course must be charted. There is a developed science of business for his guidance.

The School of Commerce and Marketing tries to combine in a four-year course the subjects which are essential for every businessman, and will at the same time give him the right degree of specialized training. Every business man needs a working knowledge of accounting, commercial law, marketing, taxation, corporation organization, traffic rates, labor management and financing. In addition many men would like to qualify as certified public accountants or as managers of sales, advertising, credit and collections, traffic, foreign trade, employment and investments.

Or it may be that some will prefer management in the field of agriculture, petroleum development, industrial chemistry or engineering. There is the closest cooperation between all of the departments of the College. The diversification in the College makes possible a wide range of electives. The students in Commerce and Marketing are urged to choose a definite line of technical work in other departments and follow it through. They are also urged to reach into other departments for subjects which will widen their outlook and make them broadgauged business men.

The student should not make the mistake of thinking that he can step immediately from this course into an important executive position. That is not the idea. Experience at the bottom of the business must be added, and then should come increasing responsibility and an assured place at the top.

It is believed that this course gives a deep grasp of business knowledge, and that the graduate who has initiative and is willing to work will always make a big place for himself in his chosen field of affairs.

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COURSES IN THE SCHOOL OF COMMERCE AND MARKETING

The following outline of study represents the required and elective work in the School of Commerce and Marketing. The courses are numbered, beginning with one hundred in the Freshman year; odd numbers, as 101, represent the first semester's work in the subject and the even numbers, as 102, the second semester's work. Subjects of the Sophomore, Junior and Senior years are numbered accordingly, two hundred for Sophomore, three hundred for Junior and four hundred for Senior work. One hour of laboratory period is equivalent to one-third of a classroom period in estimating the number of hours per week to be taken.

The total requirements for graduation are 128 credits exclusive of any credits given in physical education. Sophomore electives are open to Juniors and Seniors where the necessary prerequisite work is taken.

In the outline below, figures without parenthesis indicate hours of classwork. in parenthesis, hours of laboratory work.

Economics 201 is a prerequisite to all Economic courses, required or elective, that are listed after the end of the first semester of the sophomore year.

FRESHMAN YEAR

FIRST SEMESTER	Hours		Cr.	SECOND SEMESTER	Hours		Cr.
Eng. 101. College	3		3	Eng. 102. College	3		3
Chem. 101, Inorganic	3	(3)	4	Chem. 102, Inorganic	3	(3)	4
Econ. 103, Economic Resources	3		3	Econ. 104, Manufactures in America	3		3
Draw. 111, Drawing		(3)	1	Pub. Spk. 101, Essentials	2		2
Econ. 105, Possibilities of Citizenship	3		3	Econ. 106, Business Mathematics	3		3
Typewriting		(5)	1⅔	Typewriting		(5)	1⅔
Physical Education		(3)		Physical Education		(3)	
Military Science		(3)	1	Military Science		(3)	1

SOPHOMORE YEAR

FIRST SEMESTER	Hours		Cr.	SECOND SEMESTER	Hours		Cr.
Econ. 201, Principles of Economics	3		3	Econ. 206, Business Management	3		3
Econ. 207, Business Statistics	3		3	Econ. 212, Financial Organization	3		3
Econ. 209, Elements of Accounting	2	(3)	3	Econ. 210, Principles of Accounting	2	(3)	3
Eng. 203, News-Writing	2		2	Eng. 204, Magazines and Feature Writing	2		2
Elective	4		4	Electives	4		4
Military Science		(3)	1	Military Science		(3)	1

JUNIOR YEAR

FIRST SEMESTER	Hours		Cr.	SECOND SEMESTER	Hours		Cr.
Econ. 303, Money and Banking	3		3	Econ. 314, Corporation Finance	3		3
Econ. 311, Market Organization	3		3	Econ. 312, Principles of Selling	3		3
Econ. 317, Law of Contracts and Sales	3		3	Econ. 318, Law of Business Associations	3		3
Electives	7		7	Elective	7		7

SENIOR YEAR

FIRST SEMESTER	Hours	Cr.	SECOND SEMESTER	Hours	Cr.
Econ. 421, Transportation	3	3	Econ. 419, Public Finance	3	3
Econ. 427, Law of Negotiable Instruments and Partnership	3	3	Econ. 424, Labor Economics	3	3
Econ. Elective	3	3	Economics Elective	3	3
Elective	7	7	Elective	7	7

ECONOMICS ELECTIVES

ACCOUNTING

	Hours	Cr.
Econ. 315, Corporation Accounting	2 (3)	3
Econ. 316, Corporation Accounting	2 (3)	3
Econ. 407, Cost Accounting	2 (3)	3
Econ. 423, Auditing	2 (3)	3
Econ. 426, C. P. A. Problems	3	3
Econ. 434, Bank Accounting	2 (3)	3

LAW

	Hours	Cr.
Econ. 428, Law of Real Property and Wills	3	3

GENERAL

	Hours	Cr.
Econ. 310, Insurance Principles	3	3
Econ. 320, Elements of Banking Practice	3	3
Econ. 313, Advertising Practice	2	2
Econ. 414, Rural Economics	2	2
Econ. 415, Foreign Trade	3	3
Econ. 417, City Economics	2	2
Econ. 430, Food Marketing	2	2
Econ. 425, Psychology of Advertising and Selling	2	2

All electives are subject to the approval of the Dean of the School of Commerce and Marketing.

SUBJECTS

103 ECONOMIC RESOURCES. Class 3 hours. Credit 3.

A study of the relation of industrial development to the natural environment; the effect of climate, topography, etc., upon the geographical distribution of all the great primary industries, such as cereals, animal industries, sugar, fisheries, forestry and mining.

Text: Commerce and Industry, Smith.

104 MANUFACTURES IN AMERICA. Class 3 hours. Credit 3.

A study of the history of the development of American industries in relation to underlying economic conditions, in which there will be a discussion of the determining factors in the localization of industries. The growth of basic and specialized American industries will be studied as influenced by the sources and selection of raw materials and labor. During the whole course, the fundamental economic factors operating in individual industries will be kept in view.

105 THE PROBLEMS OF CITIZENSHIP. Class 3 hours. Credit 3.

The political characteristics of citizenship will be considered at the first, to be followed by a discussion of the social, political and economic problems of recent and current interest that affect the citizen. The idea of the course is to open the mind of the student to the great problems of life which surround him and which he must be prepared to meet successfully as an individual and as a citizen. In the course it is hoped to develop the necessity of the habit of reading, and of consistent and discriminating thought along economic lines as affecting the citizen.

106 BUSINESS MATHEMATICS. Class 3 hours. Credit 3.

This course presupposes not more than elementary algebra as prerequi-

site. It will include such topics as stocks, bonds, amunities, sinking funds, investments, amortization, depreciation of foreign exchange, customs, and equation of accounts. The building and use of calculating tables will be practiced. Logarithms will be explained and used in the calculation of problems. Mechanical computing devices will be explained and used.

201 PRINCIPLES OF ECONOMICS. Class 3 hours. Credit 3.

The foundation for all of the other studies in economics. Serves as an introduction to the consideration of money and banking, commerce, business organization and administration, labor problems, public finance, etc. The science of economics is presented according to the four classical divisions—production, exchange, distribution, consumption.

206 BUSINESS MANAGEMENT. Class 3 hours. Credit 3.

A survey of the problems confronting the business manager for the purpose of giving the student early in the course a view of business in all its relationships and familiarity with its technique. Following are some of the points examined: The business environment, forms of enterprises, financing, office administration, wage systems and control of labor, purchasing and selling, traffic, credit, forecasting business conditions, etc.

Text: "Principles of Business", Gerstenberg.

207 BUSINESS STATISTICS. Class 3 hours. Credit 3.

A study of the statistical method of investigating economic and business problems. Attention is directed to existing statistical sources and to the practical problems of collecting, analysis, presentation and comparison of material. Use of statistics in study of general economic problems in analysis of sales. Production and advertising records are introduced by means of text and practical studies. Attention is given to index numbers.

Text: "Introduction to Statistical Methods," Secrist.

209 ELEMENTS OF ACCOUNTING. Class 2 hours, laboratory 3 hours. Credit 3.

Elements of double and single-entry; single proprietorship and partnership accounting; construction of simple financial statements.

Text: "Accounting—Theory and Practice" (Vol. I), Kester.

210 PRINCIPLES OF ACCOUNTING. Class 2 hours, laboratory 3 hours. Credit 3.

A study of the principles and theory of double-entry accounting, beginning with the assets and liabilities statement, and the income and expense statement, and then examining the sources from which these two final summaries are made, namely, the ledger and journal. Practical problems are worked out in detail. Practice is given in closing the books, the trial balance, partial summarization, adjustment entries, etc.

Text: "Accounting—Theory and Practice" (Vol. I), Kester.

212 FINANCIAL ORGANIZATION. Class 3 hours. Credit 3.

This course is intended to be an introduction to the field of finance as as it has developed by the means of commercial banks, savings banks, underwriters, trust companies, stock exchanges, etc., and to give a prospective view of the different financial institutions that make up the financial structure of the commercial world.

Text: "The Financial Organization of Society," Moulton.

303 MONEY AND BANKING. Class 3 hours. Credit 3.

The relation of money and credit to every business activity is shown and studies are made of the currency systems of this and foreign countries. Special attention is given to an analysis of commercial and investment paper. A

thorough survey is made of the history, organization and present operation of national banks, state banks, trust companies, treasury systems, Federal Reserve banks, Federal Land banks, etc.

310 INSURANCE PRINCIPLES. Class 3 hours. Credit 3.

Prerequisite: Economics 201-207.

An introductory course for students who expect to pursue further study of specialized forms of insurance. This course will cover the principles and practices that are common to the different forms of insurance. Attention will be given to the different kinds of insurance.

311 MARKET ORGANIZATION. Class 3 hours. Credit 3.

A study, in all their relationships, of products, markets, consumer-demand, prices, and the agencies which cooperate in taking the product from producer to consumer. Intensive examination is made of the work of the exchanger, such as wholesaler, jobber, commission dealer, broker, scalper, manufacturer's agent, retailer, including department store, mail-order house, chain-store, etc.

312 PRINCIPLES OF SELLING. Class 3 hours. Credit 3.

A survey of the principles of salesmanship, including advertising. Selling talks, sales letters and advertising copy are analyzed and practice in their preparation and application is given. Lessons are drawn from sales departments of large corporations. Goods, prices and market conditions are studied.

313 ADVERTISING. Class 2 hours. Credit 2.

A course dealing with the theory, technique and practice of advertising from the viewpoint of planning and writing advertising copy. A subjective study of merchandise as advertising matter. An investigation of different advertising campaigns will be made as to their effectiveness. A text will be used and a frequent writing of copy will be required.

314 CORPORATION FINANCE. Class 3 hours. Credit 3.

The organization of the one-man business, partnership and corporation are studied and compared. A study is made of the corporation through its many ramifications. The course will present the variations of risk, income, and control a corporation effects through the issuance of securities; the principles governing the issuance and proportions of classes of securities of a corporation. The course will be based on the syllabus of the Investment Bankers' Association and a text.

315 CORPORATION ACCOUNTING. Class 2 hours, laboratory 3 hours. Credit 3.

Prerequisite: Econ. 210.

An examination from accounting standpoint of the corporation balance-sheet; principles of valuation, depreciation; mercantile credits; wasting assets; contingent liabilities; profits, surplus and reserves; dividends, sinking fund, liquidation, consolidations, branches, reports of receivers and trustees.

Text: "Accounting—Theory and Practice" (Vol. II), Kester.

316 CORPORATION ACCOUNTING. Class 2 hours, laboratory 3 hours. Credit 3.

Continuation of Econ. 315.

317 LAW OF CONTRACTS AND SALES. Class 3 hours. Credit 3.

Principles of law are drawn from the study of cases. Outline for contracts: Formation, interpretation, operation, discharge. Outline for Sales: Formation of sale contract, transfer of property and title, performance, rights of unpaid seller against the goods, actions for breach.

Text "Cases on: Commercial Law", Bays.

318 LAW OF BUSINESS ASSOCIATIONS. Class 3 hours. Credit 3.

Prerequisite Econ. 201-317.

Principles of law are deduced from the study of cases. Outline for Agency: Relation of principal and agent, mutual rights and duties, rights and obligations of third persons, termination of relationship. Outline for partnership: Creation, firm name, rights and liabilities, termination. Outline for corporations: Nature of corporations, classes, creation, charter, powers and liabilities.

320 ELEMENTS OF BANKING PRACTICE. Class 3 hours. Credit 3.

Bank charters and by-laws; the outline of bank organization; the duties of officers and employees and the organization of departments; bank loans and investments; bank reserves; the increasing of bank deposits; the borrowers statement; earnings and profits of a bank; the clearing house. A study will be made of the practice of the different credit and loan associations.

406 LAW OF CONTRACTS. Class 2 hours. Credit 2.

Principles of law are drawn from the study of cases. Contracts are examined under the following divisions: Formation, interpretation, operation, discharge. This subject is offered for the benefit of engineers, agriculturists and others who have not the time to take the longer law courses.

Text: "Cases on Commercial Law", Bays.

407 COST ACCOUNTING. Class 2 hours, laboratory 3 hours. Credit 3.

Prerequisite: Econ, 201, 210.

The functions of costs and their relation to management are first studied; cost systems by which costs are determined are examined; the interpretation of the cost data is given special attention.

414 RURAL ECONOMICS. Class 2 hours. Credit 2.

A study of farm business and rural life. A view of the relation of the farm home, social life, good roads, community cooperation, tenantry, soil conservation, standardization of crops, rural credits, and better marketing to rural progress. A broad view of the possibilities of reorganizing agriculture and rural life. A thorough survey is made of rural conditions in foreign countries, United States and Oklahoma.

415 FOREIGN TRADE. Class 3 hours. Credit 3.

The principles as well as the technique on which foreign trade is based and developed are emphasized. Attention is called to the characteristics of foreign peoples and the material resources of the countries. Facts are tabulated concerning amount and kind of exports and imports, and the best lines for export development. Examination is made of tariffs, treaties, regulations of ports, foreign exchange, work of consular agencies, etc.

420 CITY ECONOMICS. Class 2 hours. Credit 2.

A view of municipal administrative problems. The franchise and the regulation and ownership of public utilities are subjects for special consideration. Special attention is also given to the commission and city manager forms of government.

421 RAILROAD RATES. Class 3 hours. Credit 3.

Deals primarily with rates in their relation to industry and commerce. Both the theory and practice of rate making are explained in detail, involving questions of classification, routing, discriminations, etc. Stress is laid on rate differentials and their effects on agricultural, manufacturing and jobbing interests. Federal and state regulations of rates is dealt with thoroughly. The field of study is broadened by individual reports on assigned subjects, collateral to the work in class.

Text: "Railroads: Rates and Regulation," Ripley.

423 AUDITING. Class 2 hours, laboratory 3 hours. Credit 3.

Prerequisite: Econ. 201, 316.

The duties of the auditor are studied and correlated with those of the accountant and cost accountant. Special attention is given to the qualifications of the auditor and the methods of conducting an audit. Practical problems are worked out.

424 LABOR ECONOMICS. Class 3 hours. Credit 3.

A study of labor conditions from the standpoint of manager, laborer and public. A survey of scientific management, wage systems, factory laws, accident compensation, strikes, arbitration of labor disputes, organized labor, woman and child labor, welfare work, etc.

425 THE PSYCHOLOGY OF ADVERTISING AND SELLING. Class 2 hours. Credit 2.

A study is made of the psychological principles in the problems of appeal and response in advertising and selling. There is an analysis and evalution made of the methods and values of publicity.

426 C. P. A. PROBLEMS. Class 3 hours. Credit 3.

Prerequisite Econ. 316, 318, and Senior standing.

A study of the problems given in certified public accountant examinations in the different States.

427 NEGOTIABLE INSTRUMENTS AND PARTNERSHIP. Class 3 hours. Credit 3.

Prerequisite: Economics 201-317.

Principles drawn from the study of cases. Outline for negotiable instruments: Rights of holders in due course, presentment, dishonor, protest and discharge. Outline for Partnership: Nature of a Partnership, Creation, Rights and Liabilities, Termination.

Text: "Cases on Commercial Law," Bays.

428 CORPORATIONS AND WILLS. Class 3 hours. Credit 3.

Prerequisite: Economics 201-317.

Principles of Law drawn from the study of cases.

Outline for Corporations: General Nature of a Corporation, Creation, The Body Corporate, Powers and Liabilities. Outline for Wills: Interstate succession, noncupative and holographic wills, incapacity, undue influence, necessity of subscription.

430 FOOD MARKETING. Class 2 hours. Credit 2.

This course deals with the fundamentals of marke distribution in the journey of food products from the farmer to the consumer. Attention is given to grades and standards, storage, the middleman's services, future trading, cooperative organizations, municipal marketing and warehousing, and transportation.

432 PUBLIC FINANCE. Class 3 hours. Credit 3.

A general consideration of public revenues and expenditures. The theory and facts of public expenditure. Taxation: General theory; taxing systems of the United States and foreign countries; questions of administration, effect and incidence. Treasury management, public credit and the budget.

Text: "Public Finance," Plehn.

434 THE PRINCIPLES OF BANK ACCOUNTING. Theory 2 hours, laboratory 3 hours. Credit 3.

Prerequisite: Economics 201-209-210-320.

A course dealing with the methods employed in keeping the records

necessary to control the business transactions of a bank. Giving a practical knowledge of the necessary details, and larger problems that arise in connection with the accounts of a banking business. It provides practice in handling customers' accounts, discounts, loans, accounts with other banks, etc.

SECRETARIAL STUDIES

These studies can be taken for limited credit by students in commerce and marketing.

They may also be taken by those who desire to register for special work. All such special students must have a minimum of 14 high school units.

SHORTHAND 1. Class 5 hours. Credit 5.

This course covers the fundamental principles of Gregg shorthand found in the first eighteen lessons of the manual, with special emphasis placed upon phonetics. A test is given on each lesson. The aim is accuracy rather than speed.

SHORTHAND 2. Class 5 hours. Credit 5.

The manual is completed, and "The Principal Series of Gregg Speed Studies" is started, with repetition on classified letters. Additional supplementary practice is given on average business letter matter. Simple business letters are transcribed on the typewriter. The student will be able to take simple dictation at the rate of seventy to ninety words a minute.

DICTATION 1. Class 5 hours. No credit.

In this course the "Gregg Speed Studies" is completed. Daily supplementary dictation is given on classified letters, magazine articles, newspaper clippings, etc. This dictation is new matter, and the student will be able to take it at the rate of 90 to 100 words a minute.

DICTATION 2. Class 5 hours. No credit.

Ofice training is completed and the student is trained in practical secretarial work in a model office. Additional dictation is given on more difficult business letters, all work being transcribed on the typewriter and filed. If possible some court reporting is done. Each student is required to report two lectures and make transcriptions of notes. The student is given daily drills in the routine work of a business office with all the modern appliances to work with. The student will be able to take dictation at a speed of 100 to 120 words a minute.

TYPEWRITING. Credit limited to 3⅓.

Practice hours as arranged.

Requirements: Two budgets and a speed of twenty words a minute, with not more than five errors, give 1⅔ credits. Four budgets and a speed of forty words a minute net, with not more than five errors, give 3⅓ credits.

Text: "Medal of Honor Edition of Rational Typewriting".

ADVANCED TYPEWRITING. No credit.

Practice hours as arranged.

Transcription of shorthand notes and speed drills. This course is used to give any degree of proficiency desired.

OFFICE TRAINING. Class 2 hours. Credit 2.

Gives the finishing touches to shorthand and typewriting. Thorough instruction in business ethics, the mechanics of letter-writing, uses of business

forms and papers, filing, bills, shipping, duplicating, constructing business letters and, in fact, any other work likely to confront the office clerk or office manager.

COMMERCIAL CORRESPONDENCE. No credit.

Thorough practice in every branch of correspondence, including letters, dealing with credit, collections, inquiries, purchases, sales, adjustments.

BOOKKEEPING 1. Class 9 hours. No credit.

Elementary work in fundamental principles of debit and credit, followed by work in columnar books and statements of various kinds. Special work in closing of ledgers and making of business, trading, profit and loss and financial statements. In the more advanced work is included single proprietorship, partnership and banking bookkeeping.

BOOKKEEPING 2. Class 9 hours. No credit.

Continuation of Bookkeeping 1.

COMMERCIAL ARITHMETIC. Class 3 hours. No credit.

Required of all commerce and marketing students who show in their Elementary Accounting course the need of it.

A study and review of arithmetical principles and processes essential in discount, trade discounts, percentage, aliquot parts, equation of accounts, commissions, computations connected with investments in stocks and bonds.

PENMANSHIP AND SPELLING. Class 3 hours. No credit.

Required of commerce and marketing students who show in their other work the need of it.

THE SCHOOL OF VETERINARY MEDICINE

L. L. LEWIS, *Dean and Professor of Veterinary Medicine*
C. H. McELROY, *Associate Professor*
H. W. ORR, *Assistant Professor*

The growing importance of the livestock industry of the State has made a course in Veterinary Medicine a necessity. The work is outlined so as to provide a thorough and well-balanced course of instruction leading to the degree of Doctor of Veterinary Medicine.

The entrance requirements to this course of study include the presentation of 15 units of high school work. (See entrance credits in first of catalog for detailed statement.)

Candidates for the degree of Doctor of Veterinary Medicine must have attained the age of 21 years, and satisfactorily completed all of the courses as outlined.

There are many opportunities in professional and scientific work for young men of thorough training in veterinary medicine. In order to meet the demands that are made on their entering the field of private practice or positions requiring technical knowledge, the veterinarian must have a good general education in addition to the specialized work in veterinary medicine.

The last two years' work in veterinary medicine will not be given in 1921-22.

Some of the more prominent fields of work open to veterinarians are as follows:

Private Practice.—There are many good fields of work, not only in Oklahoma, but in other States. There is a growing interest in the South in the livestock business, and as money invested in livestock increases, so will the demand for competent veterinarians.

Civil practice.—Much important work in the United States Department of Agriculture is open only to men who are graduates from veterinary colleges.

State and City Work.—The positions of State and Assistant State Veterinarians and municipal food inspectors are open as a rule only to qualified veterinarians.

The army service also offers a field of work that is becoming attractive to qualified men.

COURSES IN THE SCHOOL OF VETERINARY MEDICINE

The following outline of study represents the required work in the School of Veterinary Medicine. The courses are numbered, beginning with one hundred in the Freshman year; odd numbers, as 101, represent the first semester's work in the subject, and the even numbers, as 102, represent the second semester's work. Freshman and higher class subjects are numbered as hundreds, one hundred for Freshman work, two hundred for Sophomore work, etc. The laboratory work is in parenthesis, and three hours of this work is equivalent to one theory hour, or 1 credit. To graduate, a student must complete the following courses as outlined. Registration will not be permitted in less than 12 nor more than 20 credit hours.

FRESHMAN YEAR

FIRST SEMESTER	Hours		Cr.
V. M. 101, Anatomy	2	(6)	4
V. M. 103, Histology	2	(4)	3⅓
Zool. 201, General	2	(4)	3⅓
Chem. 101, Inorganic	3	(3)	4
Physical Education		(3)	
Military Science		(3)	1

SECOND SEMESTER	Hours		Cr.
V. M. 102, Anatomy	2	(6)	4
V. M. 104, Histology	2	(4)	3⅓
Chem. 102, Inorganic	3	(3)	4
Zool. 402, Embryology	2		2
A. H. 202, Breeds	2	(3)	3
Physical Education		(3)	
Military Science		(3)	1

SOPHOMORE YEAR

FIRST SEMESTER	Hours		Cr.
V. M. 201, Anatomy	2	(6)	4
V. M. 203, Materia Medica	3		3
V. M. 205, Pathology	2	(4)	3⅓
V. M. 211, Physiology	3	(2)	3⅔
V. M. 209, Parasitology	2	(2)	2⅔
Military Science		(3)	1

SECOND SEMESTER	Hours		Cr.
V. M. 202, Anatomy	2	(6)	4
V. M. 204, Materia Medica	3		3
V. M. 206, Pathology	2	(4)	3⅓
V. M. 212, Physiology	3	(2)	3⅔
V. M. 208, Pharmacy	1	(3)	2
A. H. 306. Animal Nutrition	3		3
Military Science		(3)	1

JUNIOR YEAR

FIRST SEMESTER	Hours		Cr.
V. M. 301, Theory and Practice	3		3
V. M. 317, Therapeutics	3		3
V. M. 305, Surgery	2		2
V. M. 307, Surgical Anatomy		(4)	1⅓
V. M. 303, Clinical Diagnosis	2		2
V. M. 311, Special Pathology	1	(3)	2
V. M. 319, Soundness		(2)	⅔
V. M. 321, Restraint		(2)	⅔
V. M. 313, Clinic		(7)	2⅓

SECOND SEMESTER	Hours		Cr.
V. M. 302, Theory and Practice	4		4
V. M. 304, Therapeutics and Toxicology	4		4
V. M. 306, Surgery	3		3
V. M. 310, Bacteriology	3	(4)	4⅓
V. M. 314, Clinic		(6)	2

SENIOR YEAR

FIRST SEMESTER	Hours		Cr.
V. M. 401, Theory and Practice	4		4
V. M. 403, Surgery	3		3
Bact. 403, Technical	3	(4)	4⅓
V. M. 405, Dentistry	1		1
V. M. 411, Obstetrics	3		3
V. M. 415, Clinic		(7)	2⅓

SECOND SEMESTER	Hours		Cr.
V. M. 402, Theory and Practice	4		4
V. M. 404, Special Surgery	2		2
V. M. 406, Milk and Dairy Inspection	1	(2)	1⅔
V. M. 408, Laboratory Diagnosis		(2)	⅔
V. M. 410, Meat Inspection	3		3
V. M. 412, Lameness and Shoeing	2	(4)	3⅓
V. M. 414, Jurisprudence	1		1
V. M. 416, Clinic		(6)	2

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DESCRIPTION OF COURSES AND EQUIPMENT

The equipment used for instruction in veterinary medicine includes that of the laboratories of bacteriology, physiology, chemistry and zoology. Separate buildings are provided for the work in antomy and the medical and surgical treatment of animals. Such facilities will enable students to undertake their work with all conveniences and equipment afforded by well-established courses of instruction.

SUBJECTS

101 ANATOMY. Class 2 hours, laboratory 6 hours. Credit 4.

Osteology and myology of head and neck.

A comparative study of the muscles of the head and neck of the horse. Instruction in anatomy extends over a period of two years, and is given by lectures, recitations and laboratory work. Each student is required to make one or more complete dissections of the horse, with comparative dissections of the trunk and viscera of other domesticated animals.

Text: "The Anatomy of the Domestic Animals", Sisson.

102 ANATOMY. Class 2 hours, laboratory 6 hours. Credit 4.

Prerequisite: Anat. 101.

Myology of the thoracic limb and trunk.

103 HISTOLOGY. Class 2 hours, laboratory 4 hours. Credit 3⅓.

Histology is microscopic anatomy, and in the allotted time the student is required to collect, prepare and make drawings of all the different tissues of the body. This course is necessary in order that the later instruction in the various disease processes may be fully understood.

104 HISTOLOGY. Class 2 hours, laboratory 4 hours. Credit 3⅓.

A continuation of the work of the previous semester.

Text: "Normal Histology", Piersol.

Reference: Ferguson; Davidoff and Huber; Stedman's "Medical Dictionary.

201 ANATOMY. Class 2 hours, laboratory 6 hours. Credit 4.

Prerequisite: Anat. 101, 102.

Myology of pelvic limb and splanchnology.

In addition to the dissection of the muscles and ligaments of the pelvis and hind limbs, dissections of the organs and viscera of the trunk will be commenced, and continued through the next semester.

202 ANATOMY. Class 2 hours, laboratory 6 hours. Credit 4.

Prerequisite: Anat. 101, 102, 201.

Angiology and neurology.

The work of this semester will be a continuation of the dissections of the viscera and will include a special study of the circulatory and nervous systems of the horse. Surgical regions are especially emphasized.

203-204 MATERIA MEDICA. Class 3 hours. Credit 3.

Prerequisite: Freshman Chem. 101 and 102.

Materia medica is a subject that deals with the origin, derivation, physical and chemical properties and tests of purity of medical materials.. The subject is taught throughout the second year, the first half being inorganic and the second half organic.

Text: "Materia Medica and Therapeutics", Winslow.

205-206 GENERAL PATHOLOGY. Class 2 hours, laboratory 4 hours. Credit 3⅓.

Prerequisite: Vet. Med. 103 and 104.

A study of the effects of disease processes upon the body tissue and fluids without reference to any particular disease. In the laboratory these processes are studied and drawn with the aid of the microscope and projectoscope. The students are instructed in laboratory technique.

208 PHARMACOLOGY. Class 1 hour, laboratory 3 hours. Credit 2.

A lecture and laboratory course given to the second-year class during the second semester, embracing a study of the theory of pharmaceutical methods and operations, and the compounding of various preparations with special reference to prescription work.

209 PARASITOLOGY. Class 2 hours, laboratory 2 hours. Credit 2⅔.

A study of internal and external parasites of the domestic animals is taken up and their methods of control and eradication discussed.

211-212 COMPARATIVE PHYSIOLOGY. Class 3 hours, laboratory 2 hours. Credit 3⅔.

By aid of lectures, demonstrations and tests, the comparative physiology of the domesticated animals is presented in a thorough and practical manner. The veterinary students have access to the well-equipped physiology laboratory of the School of Science and Literature, and are given every opportunity to demonstrate the functions of the different organs of the body by the aid of modern apparatus.

301 THEORY AND PRACTICE. Class 3 hours. Credit 3.

302 THEORY AND PRACTICE. Class 4 hours. Credit 4.

Theory and practice includes a study of the diseases of domesticated animals, their diagnosis and treatment, as met in routine practice. This subject is taught for two years. In that length of time it is intended, by means of lectures and clinics, to acquaint the student with as great a variety of abnormal conditions as possible, and instruct him in their diagnosis and treatment.

303 CLINICAL DIAGNOSIS. Class 2 hours. Credit 2.

In presenting this subject, it is the intention of the instructor to condense, review and emphasize the methods used in diagnosing diseases.

304 THERAPEUTICS AND TOXICOLOGY. Class 4 hours. Credit 4.

Therapeutics is a study of the use of all agencies that are of value in the treatment of diseases and the relief of pain. Thus it is the application of the previous course in materia medica, with the additional emphasis on the toxication of drugs and antidotal measures to be employed in combating them.

305 SURGERY. Class 2 hours. Credit 2.

306 SURGERY. Class 3 hours. Credit 3.

Prerequisite: First and second-year anatomy.

The theory of veterinary surgery is given the third and fourth-year students in connection with the theory and practice of medicine and the hospital clinic.

Methods of restraint, the use of different anesthetics and the general principles of surgical technique are taught the first semester of the Junior year. The different surgical diseases are then studied and discussed.

The clinic offers practical demonstrations of the principles discussed in class.

307 SURGICAL ANATOMY. Laboratory 4 hours. Credit 1⅓.

Prerequisite: Anat. 101, 102, 201, 202.

A review of the previous course, with special reference to the general topography and various surgical areas of the horse, ox, dog and pig.

Text: "Comparative Anatomy", Sisson.

Reference: "Surgical Anatomy", Share, Jones.

311 SPECIAL PATHOLOGY. Class 1 hour, laboratory 3 hours. Credit 2.

Prerequisite: Vet. Med. 205 and 206.

This work includes a study of disease processes in the different organs of the body and specific diseases. An introduction to postmortem technique is given and, when autopsies are available, the student will be taught to apply his knowledge in a practical way.

Text: "Veterinary Postmortem Technique", Crocker.

313 CLINIC. Laboratory 7 hours. Credit 2⅓.

314 CLINIC. Laboratory 6 hours. Credit 2.

317 THERAPEUTICS. Class 3 hours. Credit 3.

319 SOUNDNESS. Laboratory 2 hours. Credit ⅔.

A knowledge of the special phases of soundness from a legal standpoint is of the greatest value to a veterinarian. He should be able to advise his clients regarding the significance of weaknesses and blemishes, their probable transmissibility by breeding, etc. The hospital clinic furnishes abundant material to make this a thorough course of study.

321 RESTRAINT. Laboratory 2 hours. Credit ⅔.

The student is taught to confine animals for various surgical operations and manipulations. The hospital is equipped with operating table, stocks and casting harness for all surgical work.

401 THEORY AND PRACTICE. Class 4 hours. Credit 4.

Prerequisite: 301-302.

402 THEORY AND PRACTICE. Class 4 hours. Credit 4.

Prerequisite: Vet. Med. 301-302 and 311.

Four hundred and one and 402 deal with the different phases of infectious diseases, their diagnosis and control.

Texts for all courses are the same.

Text: "Pathology and Therapeutics of the Diseases of Domesticated Animals", Hutyra and Marek.

Reference: Law, Hoare, Friedberger and Frohner.

403 SURGERY. Class 3 hours. Credit 3.

404 SPECIAL SURGERY. Class 2 hours. Credit 2.

These courses are a continuation of the work of the previous year, and include all the major operations.

Text: "Veterinary Surgery", Merilatt, Vols. I, II, III, IV.

Reference: Share, Jones, Cadoit and Adams.

405 DENTISTRY. Class 1 hour. Credit 1.

A study of the teeth of the domestic animals by aid of bones and models, and a consideration of the cause of their defects; prevention and treatment of same.

406 MILK AND DAIRY INSPECTION. Class 1 hour, laboratory 2 hours. Credit 1⅔.

In this course. classwork includes a study of the secretion of milk, its chemical properties and bacteriology; transmission of diseases of man by milk; methods of handling milk from cow to the consumer, and methods of herd and dairy farm inspection. The laboratory work includes the more important physical and chemical bacteriological and microscopic tests.

Text: "Principles and Practice of Milk Hygiene", Klein.

408 LABORATORY DIAGNOSIS. Laboratory 2 hours. Credit ⅔.

This course will include practice in the ordinary diagnostic methods with which the veterinarian should be familiar. Special attention will be given to the diagnosis of parasitic troubles and bacterial infections. Some work in urine and milk analysis will be given.

410 MEAT INSPECTION. Class 3 hours. Credit 3.

Meat inspection takes up a review of postmortem symptoms of different diseases of food-producing animals, especially those transmissible to man. The subject is of especial importance to students who contemplate entering the Government work of inspecting meat products after graduation. Side trips are taken to the packing houses where the work of inspecting meat products is in operation.

Text: "Meat Hygiene", Mohler and Eichorn.

411 OBSTETRICS. Class 3 hours. Credit 3.

After a brief review of obstetrical anatomy, the work is devoted largely to a consideration of the different abnormal conditions arising incident to parturition and the treatment.

Text: "Veterinary Obstetrics", Williams.

412 LAMENESS AND SHOEING. Class 2 hours, laboratory 4 hours. Credit 3⅓.

Diseases of the foot and the effect of shoeing on their prevention and treatment. The instruction is of especial importance to the city practitioner.

Text: "Horseshoeing", Adams; "Diseases of the Foot", Reeks.

414 CLINIC. Laboratory 6 hours. Credit 2.

No school of medicine is stronger than its clinic. Here the student comes in actual contact with the problems relating to the care of sick animals. Hospital accommodations are furnished, and squads of students are assigned patients as they are presented. This work tends to impress upon the student the practical phase of his previous training.

415 CLINIC. Laboratory 7 hours. Credit 2⅓.

416 JURISPRUDENCE. Class 1 hour. Credit 1.

There are certain restrictions placed on the movements of livestock from one State or country to another by the United States and State livestock sanitary commissions. Many other legal and ethical obligations are presented in the practice of the veterinarian. That he may deal intelligently with these matters, an attempt is made to outline them and their correct solution. In addition, some fundamentals of business are outlined in the series of lectures given by different members of the Faculty of the School of Veterinary Medicine.

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DESCRIPTION OF THE SUBJECTS TAUGHT IN THE SCHOOL OF AGRICULTURE

The following subjects are given to students in agriculture in order that they may become familiar with some of the more common diseases that every stock-owner must treat:

309 VETERINARY ANATOMY. Class 2 hours, laboratory 2 hours. Credit 2⅔.

A study of some of the practical points of the anatomy of domesticated animals.

310 ANIMAL DISEASES. Class 2 hours, laboratory 2 hours. Credit 2⅔.

The more common diseases of livestock are discussed in this course. The laboratory work is intended to teach the student simple operations and familiarize him with practical means of restraining animals for operative purposes. Hygiene and the disposal of animals dead of infectious diseases is brought out and special emphasis is placed on the administration of vaccines, uses of antiseptics, etc.

315 VETERINARY PHYSIOLOGY. Class 2 hours, laboratory 2 hours. Credit 2⅔.

A fundamental course in veterinary physiology. Special emphasis will be given to the subjects of digestion, circulation and locomotion.

Text: "Veterinary Physiology", Smith.

THE SECONDARY SCHOOL

C. L. KEZER, *Principal*
J. H. CALDWELL, *Assistant Professor*
EDITH A. TITUS *Instructor*
MRS. ALICE B. TRAVER, *Instructor*
W. C. PAYNE, *Instructor*
ED. McCARREL, *Instructor*
HARRIET R. ENSWORTH, *Instructor*
MRS. ANNIE G. THORNTON, *Instructor*
E. L. McBRIDE, *Instructor*
R. Q. GOODWIN, *Student Assistant*
JEANNE STEELE, *Student Assistant*
GERTRUDE WADE, *Student Assistant*
CLAUDE SALE, *Student Assistant*
E. L. BOLIN, *Student Assistant*

Entrance to the Secondary School requires: First, that applicant be 16 years of age, if residing where a four-year high school is maintained, or 14 years of age, if no such high school is maintained at his home. Second, that a diploma of graduation, or certificate of promotion from the common schools of the State be presented. Third, that at least 8 units of high school work have been completed.

Recitation periods are fifty minutes long. Penmanship must be taken if the student is not proficient. Credit examinations are given in all branches. Grades brought from approved high schools are accepted. Work done in non-accredited high schools is received on statement by Faculty Committee on Non-Accredited schools.

Full Freshman standing in College is obtained upon completion of 15 units (conditional with 14 units). Besides required branches, the complement of units comprises such subjects as will strengthen the student for the College course in view, or for teacher's certificate requirements.

FIRST YEAR

(Not given during year 1921-22).

SECOND YEAR

(Not given during year 1921-22).

THIRD YEAR

FIRST SEMESTER	Cl.	Pr.
English 31	4	
Physics 31 (S. and L., Engr.)	3	4
Latin, French or Spanish 31 (S. and L)	4	
Modern History 35	5	
Algebra 31	4	
D. A. 33		4
Physical Education 31		3

SECOND SEMESTER	Cl.	Pr.
English 33	4	
Physics 32 (S. and L., Engr.)	3	4
Latin, French or Spanish 32 (S. and L.)	4	
Modern History 36	5	
Algebra 34 (Engr.)	4	
Solid Geometry 32	4	
D. A. 34		6
Physical Education 32		3

FOURTH YEAR

FIRST SEMESTER

	Cl.	Pr.
American History 43	4	
Latin 101, French or Spanish 201 (Engr.)	3	
Education 103 (Teachers)	3	
Arithmetic 41 (Engr.)	5	
Oklahoma History and Civics 41	1	
American Government 45	4	
D. S. 41		6
Physical Education		3

SECOND SEMESTER

	Cl.	Pr.
American History 44	4	
Latin 102, French or Spanish 202 (Engr.)	3	
Education 104 (Teachers)	3	
Education 106 (Teachers)	3	
Geography 42 (Teachers)	3	
D. S. 42		4
Physical Education		3

ELECTIVES

FIRST SEMESTER

	Cl.	Pr.
General Science 11	2	4
Arithmetic 41	5	
Algebra 31	4	
Typewriting	5	or 10
Shorthand		
Music—Violin, Voice, etc.		
Public School Music 21	2	
College or Vocational Courses Approved		
Languages 31, 101, 201		
Agriculture, Horticulture 203		
Poultry Husbandry 305	2	4
Woodwork 21		4
Mechanical Drawing 21		2

SECOND SEMESTER

	Cl.	Pr.
General Science 12	2	4
Geography 42	3	
Solid Geometry 32	4	
Typewriting		
Shorthand		
Music—Piano, Voice, Violin, etc.		
Public School Music 22	2	
College or Vocational Courses Approved		
Languages 32, 102, 202		
Agriculture—Horticulture 201	2	4
Woodwork 22		4
Mechanical Drawing 22		2

SUBJECTS

EDUCATION 103. Class 3 hours.

School hygiene and management. For teachers.

EDUCATION 104. Class 3 hours.

Elementary Psychology. For teachers.

EDUCATION 106. Class 3 hours.

Methods of teaching the common branches. For teachers.

All required for two-year State certificate.

These constitute the required one year in pedagogy for two-year State certificate, and are open to Senior Preparatory students only. For description, see School of Education in College.

ENGLISH 31-33. Class 4 hours.

English 31 is a good course in English grammar; English 33 in Spring Semester and Summer Session, the same credit.

MODERN HISTORY 35-36. Class 5 hours.

From beginning of French Revolution to date. Maps and notes.

OKLAHOMA HISTORY AND CIVICS 41. Class 1 hour.

The unique story of Indian consolidation and settlement of Indian Territory and Oklahoma. Survey of the State in education, industry and government. Many maps and supplementary matter used.

AMERICAN HISTORY 43-44. Class 4 hours.

High school history. Gives grade on teacher's certificate.

AMERICAN GOVERNMENT 45. Class 4 hours.

Prepares to teach in common schools. Pedagogy of subject given. Course composed of two parts, how the Government operates, and how it is organized. Reference work required.

ALGEBRA 31. Class 4 hours.

Requires algebra 1 unit as prerequisite.

ALGEBRA 34. Class 4 hours.

For Engineering course.

ARITHMETIC 41. Class 5 hours. Credit ½ unit.

Required of Engineers.
See Manual Training course, College.

VOCAL MUSIC 21-22. 2 hours.

Essential work for teacher's elementary certificate. 21 and 22 are prerequisite for Public School Music in College course.

PHYSICS 31. Class 3 hours, laboratory 4 hours.

Required of all students who expect to enter regular courses in Engineering, Science and Literature and Agriculture.
Prerequisite: Algebra 1 unit; Plane Geometry 21, 22.
Covers mechanics and heat.
Text: "Physics With Applications," Carhart and Chute.

PHYSICS 32. Class 3 hours, laboratory 4 hours.

Required of all students who expect to enter regular courses in Engineering, Agriculture and Science and Literature.
Prerequisite: Physics 31 and its prerequisite.
Covers electricity, magnetism and light.
Text: "Physics With Applications," Carhart and Chute.

GEOGRAPHY 42. Class 3 hours.

Mostly commercial geography.
Required for teachers.

GENERAL SCIENCE 11, 12, 21, 22. Class 2 hours, laboratory 4 hours.

In vocational agriculture and trades, courses 11, 12. In vocational home economics, courses 21, 22. Courses 11 and 12 equivalent to 21 and 22. Main part of content of courses the same for three vocations. Elementary physics, chemistry and biology. Unity of matter psychological rather than logical, related to life. Limited to applied science as much as possible.

SPANISH 31-32. Class 4 hours. Credit ½ unit each.

Essentials of Spanish grammar. Reading easy prose. Conversation and careful training in pronounciation.
Text: "A Brief Spanish Grammar," Ingraham-Edgren; "Elementary Spanish-American Reader," Berge-Soler and Hathaway.

FRENCH 31-32. Class 4 hours. Credit ½ unit each.

Essentials of French grammar, with the more common irregular verbs. Reading of about one hundred pages of easy prose. Careful training in pronunciation.
Text: Fraser and Squair's grammar; Cruce's "Lectures Faciles," Allen and Schoell's "French Life."

LATIN 31-32. Class 4 hours. Credit ½ unit each.

Drill on the essentials of Latin grammar, acquiring of vocabulary, reading stories from Roman history, anecdotes and fables.
Text: (1) "Latin Lessons," Smith; (2) "Gradatim."

DOMESTIC SCIENCE 41. Laboratory 6 hours first semester, D. S. 42. Laboratory 4 hours second semester. Required of all girls. Contents, foods and cookery.

DOMESTIC ART 33-34. Laboratory 4 hours first semester, 6 hours second semester.

Sewing: Plain stitches applied to various articles, as towels, sewing-aprons, etc. Patching and darning. Machine sewing. Seams. Simple undergarments. Study of textiles and fibers used.

THE DEPARTMENT OF MUSIC

BOHUMIL MAKOVSKY, *Director*

The Department of Music forms an integral part of the College, and is under the same government and discipline. But its immediate interests and specific work are under the supervision of the Director of the Department of Music. The purpose of the department is to provide opportunities for obtaining a good musical education under the auspices of the Oklahoma A. and M. College. The general plan of the work is the same as that of the best American schools of music. These courses of study are thorough and comprehensive, and the methods of instruction are along modern lines. The aim is to teach music, not only as an accomplishment, but also as an aid in the development of the highest type of manhood and womanhood. The intimate connection of the department with the other departments of the College presents to the students opportunities of pursuing musical and literary studies at the same time. And such a combination is strongly recommended from an educational point of view. The ultimate aim is to train for life, to use the art of music as a means of intellectual, aesthetic and moral culture.

Instruction is offered in piano, voice culture, violin, brass and reed instruments, and public school music; also in theoretical courses, including harmony, appreciation, history and theory of music, instrumentation and transposition, ear-training and conducting.

Public performances being part of the course of study in a practical subject, all students are required to participate in a program when sufficiently prepared. Students, who by reason of deficient musical ability, inattention or other valid reason, fail to make satisfactory progress, may be dropped from the classes.

Practical courses include regular attendance in either Men's Glee Club, Ladies' Glee Club, Choral Society, orchestra and band, unless a student is excused by the Director of Music. The time required for the completion of the regular diploma courses in music will depend upon the student's ability, daily practice and previous work in music. Students not wishing to complete a regular diploma

course may select such branches as meet their requirements, provided they are prepared to pursue them profitably.

Most of the regular College courses will allow as much as 8 credits in music to be applied for graduation. Courses in music which may be applied, and the amount of credit to be given for each semester's work:

		Hours	Cr.
1	Piano	1	1
2	Voice	1	1
3	Violin	1	1
4	Wind Instruments	1	1
5	Public School Music	2	2
6	Music Theory or Harmony	2	⅔
7	Choral Practice	2	⅔
8	Band or Orchestra, Junior or Senior	3	1

DEPARTMENT OF PIANO

JANE PORTER SLOSS
KATE VERMILLION
C. J. FARNSWORTH
FLORENCE E. COWAN

CURRICULUM IN PIANO

FIRST YEAR

	Hours		Cr.
Piano, Music 1a-1b	2	(6)	8
*Harmony, Music 52-53	2		4
Solfeggio, Music 30-31	2		4
Musical History, Music 7-8	2		4
Instrumentation, Music 108-109	1		1
Physical Education		(3)	
Military Science		(3)	1

SECOND YEAR

	Hours		Cr.
Piano, Music 1a-1b	2	(6)	8
Harmony, Music 52-53	2		4
Solfeggio, Music 32-33	2		4
Foreign Language	3		6
English 203-204	2		4
Electives	2		4
Military Science		(3)	1

THIRD YEAR

	Hours		Cr.
Piano, Music 1a-1b	2	(6)	8
Harmonic Analysis, Music 14-15	2		4
Sight-playing, Music 40-41	2		4
Musical Pedagogy, Music 100-101	2		4
Practice Teaching, Music 104-105	2		4
Public Speaking			
Stage Deportment	1		3
Electives	2		4

FOURTH YEAR

	Hours		Cr.
Piano, Music 1a-1b	2	(6)	8
Musical Appreciation 111-112	2		2
Ensemble 35-36	1		4
Musical Pedagogy 102-103	2		4
Practice Teaching 106-107	2		4
Sight-playing 42-43	2		4
Electives	2		4

OUTLINE OF PIANOFORTE COURSE

ELEMENTARY.

Finger-exercises, Scales, Studies, New England Conservatory Course, grades 1 and 2, "Graded Studies," Crosby Adams, Burgmuller, opus 100, Concone, opus 24, Sonatinas and pieces by classic and modern composers.

INTERMEDIATE:

All forms of Technical Exercises, Arpeggios, Double Thirds, Octaves. Studies by Czerney, Cramer, Clementi. Pieces by Mozart, Haydn, Bach, Schumann, Beethoven and modern composers.

ADVANCED (Junior and Senior Classes):

Studies by Clementi, Chopin, Henselt, Liszt. Pieces by Bach, Beethoven, Chopin, Schumann and modern composers.

EXAMINATION FOR THE JUNIOR CLASS

Students are received into the Junior Class only at the Junior Examination which is held soon after the opening of the first session. Pupils who desire to take this examination should register for it with the Director at the opening of the session. Pupils will not be admitted to the Junior, Senior or Final Examinations unless recommended by their teacher in the principal study.

Record books, fully posted to date and signed by the teacher must be presented to the Director at Junior, Senior and Final Examinations.

Candidate must be prepared to play all major and minor scales at a tempo of half note equals 60; scales in double thirds; arpeggios of the tonic, dominant seventh and diminished seventh, through four octaves and in groups of four and six, at a speed of half note equals 48; all to be played in sixteenth notes. At least six studies from Cramer, Clementi and Heller or their equivalent. Not fewer than three selections of the student's choice, all of which must be played from memory.

All candidates for graduation may be required to perform by appointment in a Pupils' Recital or Advanced Students' Concert at least once in their Junior and twice in their Senior years, unless excused by the Director.

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DEPARTMENT OF VOICE

STANLEY PORTER TRUSSELLE
ELIZABETH KATHERINE MOREHARDT

ENTRANCE REQUIREMENTS FOR VOICE

Students desirous of studying voice as a major subject must have completed at least one year of piano or one year of sight-singing.

VOICE CULTURE

The vocal department aims to give its students a proper ideal of pure and resonant vocal tone, and to develop their capacity for producing such a tone, as well as to increase the flexibility and to strengthen and extend the range of the voice.

Also to give a comprehensive repertoire of such songs in English and other languages as have demonstrated their permanent artistic value, together with the most important arias in oratorois and in Italian and French operas. To this end great stress is laid upon diction in English, Italian and French.

Three years of chorus sight singing is required of all voice students who intend to qualify for the diploma.

Students will be required to appear in Student Recitals or advanced Student Concerts during their Junior and Senior years.

Candidates for diploma in voice must perform creditably in public from memory a program of the difficulty of the program given below.

PROGRAM

"Dupuis Le Jour" (Louise) ..... *Carpentier*
"Ave Maria" ..... *Bach-Gounod*
"With Verdue Clad" (Creation) ..... *Handel*
"Caro Nome" (Rigoletto) ..... *Verdi*
"Do I Love Thee"
"A Gaily Dressed Damsel" ..... *James H. Spencer*
"Moods"
"The Winds of the South" ..... *John Prindle Scott*
"La Rose D'Ispahan" ..... *Franck*
"Bon Jour Suzon" ..... *Delibes*
"Awake My Heart to Gladness" ..... *Densmore*
"A Banjo Song" ..... *Sidney Homer*
"O, Let Night Speak of Me" ..... *Chadwick*
"My Mother Bids Me Bind My Hair" ..... *Haydn*
"If You Knew Him" ..... *John Adams Loud*

CURRICULUM IN VOICE

FIRST YEAR

	Hours		Cr.
Voice 2A-2B	2	(6)	8
Piano 1A-1B	2		4
English 101-102	3		6
Public School Music 15-16	2		4
Solfeggio 30-31	2		4
History of Music 7-8	2		4
Physical Education		(3)	
Military Science		(3)	1

SECOND YEAR

	Hours		Cr.
Voice 2A-2B	2	(6)	8
Piano 1A-1B	2		4
English 203-204	2		4
Solfeggio 32-33	2		4
Harmony 50-51	2		4
Musical Pedagogy 100-101	2		4
Military Science		(3)	1
Elective	2		4

THIRD YEAR

	Hours		Cr.
Voice 2A-2B	2	(6)	8
Piano 1A-1B	2		4
Italian 1A-1B	2		4
Practice of Teaching 104-105	2		4
Public Speaking	2		2
Theory of Music 5-6	2		4
Elective	3		6

FOURTH YEAR

	Hours		Cr.
Voice 2A-2B	2	(6)	8
French	3		6
Practice of Teaching 106-107	2		4
Appreciation 111-112	2		4
Practice of Conducting	1		1
Elective	2		4

DEPARTMENT OF VIOLIN

FRANK HLADKY

FIRST YEAR

	Hours		Cr.
Violin, Music 3a-3b	2	(6)	8
Solfeggio, Music 30-31	2		4
Harmony, Music 50-51	2		4
History, Music 7-8	2		4
English 101-102	3		6
Foreign Language	3		6
Physical Education	2		2
Military Science		(3)	1

SECOND YEAR

	Hours		Cr.
Violin, Music 3a-3b	2	(6)	8
Piano, Music 1a-1b	1		2
Theory, Music 5-6	2		4
Harmony. Music 52-53	2		4
Music Pedagogy, Music 100-101	2		4
Englsih 103-104	2		4
Public Speaking 101	2		2
Orchestra	2		4
Military Science		(3)	1

THIRD YEAR

	Hours		Cr.
Violin, Music 3a-3b	2	(6)	8
Piano, Music 1a-1b	1		2
Brass or Reed, Music 4a-4b	1		2
Practice of Teaching 104-105	2		4
Instrumentation and Transposition, Music 108-109	2		4
Practice of Conducting 110-111	1		2
Orchestra	2		4
Elective	3		6

FOURTH YEAR

	Hours		Cr.
Violin, Music 3a-3b	2	(6)	8
Brass or Reed, Music 4a-4b	1		2
Practice of Teaching, Music 106-107	2		4
Practice of Conducting, Music 112-113	1		2
Acoustic	1		2
Esemble	2		4
Orchestra	2		4
Elective	2		4

VIOLIN

Entrance to this course depends on the ability of the student. Since some students are more proficient than others, less work needs be done.

Technical work required for the certificate of music in violin:

FIRST YEAR

Kelley, First Studies.
Sevcik, Op. 6, Books I, V.
Sevcik, Op. 2, Book I.
Sevcik, Op. 7, Book I.
Kayser, Book I.
Sevcik, Op. 1, Book I.
Sevcik, Op. 2, Book II.

Mittel, Popular Graded Course.
Lehmann, 25 pieces in first position.
Most Popular Violin Solos.
Dancla, Op. 68, Studies.

SECOND YEAR

Sevcik, Op. 7, Book II.
Sevcik, Op. 1, Book II.
Sevcik, Op. 6, Books VI, VII.
Kayser, Books II, III.
Sevcik, Op. 2, Book III.
Sevcik, Op. 8, shifting position.
Sevcik, Op. 9, studies.
Mazas, Books I, II.

Dancla Air Varies.
Schubert Sonatias.
Sitt, Album of Solos.
Pleyel, six Duos Op. 23.
Meerts 12 Studies.
Accolay, Concert A Minor.

THIRD YEAR

Sevcik, Op. 2, Book IV.
Sevcik, Op. 1, Book III.
Kreutzer Etudes.
Fiorillo, 36 Etudes.
Sevcik, Op. 2, Book V.
Rode Caprices.

Viotti, Concerto No. 23.
Mozart Sonatas.
De Beriot Concerto IX, VII.
Sarasate Dances.
Spohr Concerto No. 2, etc.

FOURTH YEAR

Sevcik, Op. 2, Book V.
Sevcik, Op. 1, Book IV.
Bach, 6 Sonatas.
Sevcik, Op. 2, Book VI.
Gavinies, 24 Studies.
Paganini, 24 Caprices.

Viotti. Concerto No. 22.
Sarasate Zigennerweisen.
Bruch Concerto.
Mendelssohn Concerto.
Paganini Concerto.

Technical work required for the diploma of music in violin: Out of the above named list of compositions a program lasting at least one hour must be prepared, committed to memory and performed in public.

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DEPARTMENT OF BRASS AND REED INSTRUMENTS

BOHUMIL MAKOVSKY

FIRST YEAR

	Hours		Cr.
Brass or Reed Instrument, Music 4a-4b	2	(6)	8
Solfeggio, Music 30-31	2		4
English 101-102	3		6
Foreign Language	3		6
Physical Education	2		2
Band	3		6

SECOND YEAR

	Hours		Cr.
Brass or Reed Instrument, Music 4a-4b	2	(6)	8
Piano, Music 1a-1b	1		2
Harmony, Music 50-51	2		4
Theory, Music 516	2		4
History, Music 7-8	2		4
English 103-104	2		4
Band	3		6

THIRD YEAR

	Hours		Cr.
Brass or Reed Instrument, Music 4a-4b	2	(6)	8
Piano, Music 1a-1b	1		2
Violin, Music 3a-3b	1		2
Instrumentation and Transposition, Music 105-106	2		4
Practice and Teaching, Music 104-105	2		4
Practice of Conducting, Music 110-111	1		2
Public Speaking 101	2		2
Band	3		6

FOURTH YEAR

	Hours		Cr.
Brass or Reed Instrument, Music 4a-4b	2	(6)	8
Violin, Music 3a-3b	1		2
Practice of Teaching, Music 106-107	2		4
Harmony, Music 52-53	1		2
Practice of Conducting, Music 112-113	1		2
Acoustic	1		2
Band	3		6
Elective	3		6

All candidates for graduation may be required to perform by appointment in a Pupils' Recital or Advanced Students' Concert at least once in their Junior and twice in their Senior years, unless excused by the Director.

Brass Instruments.—The course in brass instruments develops a correct breath control, as used by all best artists; a scientifically formed embouchure, good attack and a round, full tone. At first the pupil is asked to pay considerable attention to tone studies, lip drills and articulation exercises, from authors selected to best fit the pupil's need. Easy solo and duet pieces are introduced from time to time. A study of scales, awkward skips and slurrings is next begun, leading toward velocity studies, examples in phrasing, single and double-tonguing, studies in transposition, pieces of the variation type, etc.

Reed Instruments.—This department also offers artistic work in clarinet and saxophone. In general the outlines for brass instruments equally applies, excepting that the nature of the instruments cause some points of variance.

The College Band.—This organization is directed by the instructors in this department, and is governed by the rules of the Military Department. Gives one concert a year at College Auditorium, which is followed with about a ten-day concert tour over the State. The band holds an important relation to College life by arousing school spirit playing at the football and baseball games, track meets, and at other events. In addition, students have many opportunities for solo work in the various literary societies.

PUBLIC SCHOOL MUSIC

In public schools, music has taken a very important place, and there is a growing demand for teachers who are equipped and capable of directing community music, as well as the work in the grades or high school.

Credit for work in this subject at some college or State normal school should be given, but such credit should be claimed before entering the Senior year.

This course is carefully classified for each of the grades in the public schools, the work being outlined to develop the vocal ability and musical education of the pupils to suit the particular condition of the mind and the voice of the child at the average age in each grade. Advanced work is given for those desiring special preparation. This outline is somewhat as follows:

Rote songs for little folks. Study of the "staff", "notes", scale". Location of "do", or the keynote, in nine different keys. Sight-reading and singing, by syllable and by letter. Much attention given to tone quality and rhythm.

Complete analysis of songs—as to key signature, meter signature, tempo signs, marks of expression, the different values of notes used, etc. Written work from oral dictation of tones, syllables or letters. Written work from dictation of rhythm. Transposition of songs into different keys. Special practice in music-class conducting. Singing at sight, rounds, and two, three and four-part songs. Thorough practice writing and singing major, minor and chromatic scales. "Spelling" and "pronouncing" different triads or chords. A little study of the elements of harmony.

OTHER DEPARTMENTS

DEPARTMENT OF PHYSICAL EDUCATION FOR MEN

E. C. GALLAGHER,
Director of Physical Education for Men; Director o fAthletics, 1921-22
J. E. PIXLEE.
Director of Athletics and Head Coach, 1920-21 (Resigned)
J. F. MAULBETSCH, *Head Coach, 1921-22*
R. W. KENNY, *Assistant Coach*
H. G. ALLPHIN, *Assistant*
H. D. SACKETT, *Assistant Coach*

DEPARTMENT OF ATHLETICS

Unless a sound mind is housed in a sound body it will not be of the greatest value to its owner. The Oklahoma Agricultural and Mechanical College aims to create and maintain a vigorous state of health in every student of the College, and the work offered in this department is given with that idea in view. It strives to keep the student in the best possible physical condition during his stay at college, and to lay a foundation for proper living and care of the body during his life.

The men's gymnasium is a new, modern college building. It has been completed only a short time and was built along the latest and most modern lines of gymnasium construction. The main floor is 85x120 feet, and is equipped with a running track and all the modern pieces of heavy and light apparatus. The main locker room is nearly as large as the main floor and is equipped with steel lockers of standard make. Additional locker rooms for faculty, "varsity" and visiting teams are adjacent to the main locker room and shower room. The main shower room is designed to accommodate thirty men every five minutes and hot and cold water is supplied in sufficient quantity. Natural gas heaters supply the hot water. In addition to the regular gymnasium and in the east wing of the building is one of the best equipped swimming pools in the southwest. The pool may be heated with natural gas or steam and filteration and purification may go constantly. Tests from samples of pool water showed that the methods of purification used are efficient.

Every student in the College is expected to take some work to keep himself physically fit.

Regular gymnasium work is required of all Freshmen, Preparatory and Vocational students in Agriculture. Credit is given for this work and applies toward graduation from the College and Preparatory Department.

Each student in the men's department must provide himself with a regulation uniform. This suit consists of a sleeveless jersey, jockey strap, running pants, socks and tennis or gymnasium shoes. White suits are required and while any color shoes may be worn, it is recommended that the white canvas shoes be procured.

SUBJECTS

PHYSICAL EXAMINATION—PRELIMINARY

A thorough physical examination is required of all students taking work in this department.

This examination consists of measurements, strength tests, examination of the eyes, ears, nose, throat, teeth, heart, and other vital organs, and special stress is put upon pointing out to the student all his physical deformities and inequalities. These defects are pointed out tothe student and exercises to correct them are prescribed. When necessary, a student is required to report to the office of Physical Director for periodical inspection and special information. This examination is repeated at the end of the year and a comparison made showing any gains in weight, strength or the correction of deformities.

A gymnasium hand-book is made out for each student showing his complete list of measurements and other tests and special work is prescribed for each individual. The student must learn all the special exercises he must do and become familiar with himself from a physical standpoint. By creating within the student a desire to improve himself physically we have no difficulty in getting great good out of the work given.

101 PHYSICAL EDUCATION (first semester).

Required of all Freshmen of the College. The work of the class in this course consists of body building drills without apparatus, drills with light apparatus and mass games. Part of the work will consist of lectures and at the end of the semester the student must pass a written and physical examination.

102 PHYSICAL EDUCATION (second semester).

Required of the Freshmen of the College. The work given is a continuation of the work given the first semester but is more difficult. Track work and advanced work on the different pieces of heavy apparatus are added. At the end of this semester the student must pass certain tests in order to get a grade for the semester. These tests are running, chinning, dipping, high jumping, mat work, class work, work on the horse, parallel bars and a grade is given for the improvement made during the semester. All these are considered in making out the grades for the second semester.

403 PHYSICAL EDUCATION (first semester).

Senior and Junior elective.

A course in the theory of coaching the four major sports of college athletics. The first semester includes the work in football and basketball.

404 PHYSICAL EDUCATION (second semester).

A continuation of 403.

This semester's work includes a study of baseball and track and field athletics.

No student will be admitted to this course without the consent of the Physical Director.

21, 22, 31, 32 PHYSICAL EDUCATION.

Complete courses are given to the preparatory students and two years work is required for graduation from that department.

501, 502 PHYSICAL EDUCATION (first and second semester).

A. Cross-country running during the first and second semesters. Students who have qualifications and are physically prepared to do work of this kind may substitute this work for the regular gymnasium work.

B. Wrestling.—A class in wrestling is formed during the first and part of the second semester and those students who show interest and have the proper physical ability may join this class and be excused from the regular work. A study of the holds, breaks and counters is considered.

C. Boxing.—A class in boxing will be organized. This work is to be optional and comes one hour each week. Credit will be given to those who show interest in this line of work.

D. Class in Fencing.—Open only to upper-classmen with the consent of the Director.

E. Special Class.—A special class is formed for those whose deformities do not permit them to indulge in the regular class work. Special corrective exercises are given or exercises that may be done by the individual.

F. Advanced Gymnastics.—An advanced gymnastic class is formed and regular work is given each day to those who show marked advancement along gymnastic lines. This class is under the gymnastic instructor and great progress is shown each year.

G. Swimming Class.—A class is formed for those students who desire to learn swimming. This class will meet three times each week and the work will be progressive.

In addition to the compulsory work in this department we offer athletic work in the following sports and teams are maintained and intercollegiate schedules are played each year: Football, baseball, basketball, track and field athletics, gymnastics, wrestling and tennis. Next year we will have swimming and boxing as regular college sports.

The athletic work is a part of the life of students and good sportsmanship is always placed before victory. We also respect our adversaries or do not engage them. No student's education is complete until he has tried on an athletic team.

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DEPARTMENT OF PHYSICAL EDUCATION FOR WOMEN

GRACE M. STAFFORD, *Professor*
EMELIA M. SKARRA, *Assistant*

The gymnasium for women, located in the Woman's Building, is an unobstructed room 32x63 feet, and is well lighted and ventilated. There are rooms adjoining well equipped with steel lockers. At the rear of the building are the women's tennis courts and at the

east a place suitable for outdoor classes and games. The swimming pool of the men's gymnasium is used by the women several days each week. This pool, 25x60 feet, has in addition good shower baths, dressing rooms and electric hair dryers.

A regular costume is required for all class work and students are asked to make no purchases of costumes until they have consulted the instructors in this department.

Medical and physical examinations are given to all students before they are enrolled in the department. Students should make appointments for these examinations immediately upon arrival at the school. All assignments to class work are based on these examinations.

Physical Education is required of all women registered in Secondary School, Business Department, Freshman and Sophomore College and Special Students. No women are excused from the requirement of three hours per week. Those who are physically deficient are assigned to medical and substitute classes by the physical examiner.

The school year has been divided into four terms for convenience in adapting work to weather conditions. The Summer Session is classed as fifth term. These terms begin approximately as follows:

1. Fall Term—September 5.
2. Winter (First Term)—November 15.
3. Winter (Second Term)—February 1.
4. Spring Term—April 1.
5. Summer Term—June 1.

The work is planned so that each student is registered for one hour per week of regular gymnastics and two hours per week of a sport elected or prescribed. All schedules must be arranged by instructors in this department to insure the maximum of physical benefit for each student enrolled.

GYMNASTICS

101-102 FIRST YEAR GYMNASTICS. One hour per week.

Required of all Secondary, Business, and Special women students, and of all freshman college women.

Regular progressive work in general gymnastics designed to improve posture, general health and physical coordination.

Terms 1, 2, 3, 4

103-104 SECOND YEAR GYMNASTICS. One hour per week.

Required of Secondary students and sophomore college women.

All work in these courses is an advance on that offered in 101-102. The latter part of 104 is a general course in personal hygiene.

Terms 1, 2, 3, 4

105 PUBLIC SCHOOL GYMNASTICS.

This course may be substituted for 101. It is a very general course of theory and practice in teaching simple graded gymnastics, designed to aid rural and public school teachers in following work given by supervisors and manuals.

Term 5

106 MEDICAL GYMNASTICS.

Individual and prescriptive work given to student physically unable to participate in the more vigorous class work of other courses.

Terms 1, 2, 3, 4

107 SUBSTITUTE WORK.

In cases which do not entirely warrant Medical Gymnastics, rest and light exercise are prescribed. The amount is in proportion to the needs of each student.

Terms 1, 2, 3, 4, 5

108 SCHOOLROOM AND PLAYGROUND GAMES.

This course may be substituted for 102. It is a very general course of theory and practice in teaching and supervising the play of younger children, and is designed to supplement course 105.

Term 5

SPORTS

109 BEGINNING SWIMMING.

A course for beginners which includes fundamentals necessary to overcoming fear, breath control and coordinations of two simple strokes.

Terms 1, 2, 3, 4, 5

110 SECOND SEMESTER SWIMMING.

Prerequisite: 109 or equivalent.

A continuation of 109 with additional strokes and simple diving.

Terms 3, 4

111 INTERMEDIATE SWIMMING.

Prerequisite: 109-110 or equivalent.

A progression of courses striving to perfect mechanics and form of previous strokes and more advanced diving.

Terms 1, 2, 3, 4

112 ADVANCED SWIMMING.

Prerequisite: 109-110-111 or equivalent.

Instruction in individual technique of all strokes, stunts and fancy dives. Also instruction and practice in methods of life saving and resuscitation.

Terms 1, 2, 3, 4

113 SOCCER.

Term 1

114 HOCKEY.

Term 1

115 VOLLEY BALL.
Term 1

116 FOLK DANCING.
Terms 2, 3

117 BASKETBALL.
Terms 2, 3

118 BASEBALL.
Term 4

119 TENNIS.
Terms 4, 5

DEPARTMENT OF MILITARY SCIENCE AND TACTICS

This institution, being one of the beneficiaries of the Act of Congress of 1862, instruction in military tactics is made compulsory.

The department is in charge of an officer of the United States Army, detailed by the War Department, as professor of military science and tactics.

Military discipline is exercised with firmness, kindness and justice. It tends to cultivate habits of punctuality, alertness and the sense of personal responsibility. It also teaches attention to detail, cleanliness of person and of dress, a high sense of honor and respect for those in authority.

It helps the student to prepare himself the better for any position in life, because employers like to find men who are imbued with the idea of doing exactly as they are instructed by one who is authorized to direct them, and who have been trained to exercise quick yet sound judgment in any emergency that arises concerning which they have no definite instructions. These qualities are thoroughly inculcated in any person by a military training, such as the College endeavors to give them. In addition, the drills give a graceful carriage to the student, assist in the promotion of the health of the individual, and are an added benefit to the gymnasium work of the College.

Former Presdient Taft, on February 25, 1911, following a review of 1,400 cadets at the University of Illinois, wrote as follows to the President of that institution: "We are all in favor of college athletics, but one of the defects of athletics is the tendency to confine work to those who are naturally best adapted to it, while the great student body takes no active part in the games. This is not

true of military training that comes from the organization and maintenance of a school regiment."

The course of instruction is made to conform strictly to the provisions of Special Regulations No. 44, War Department, 1919, and General Order 49, War Department, Series of 1916. In compliance with the requirements of these orders, the course is both practical and theoretical, and will be given as follows:

PRACTICAL

1. Infantry Drill.
2. Advance Guards, Rear Guards, Outposts, Messages and Orders, Signaling.
3. Marches, Map-Drawing and Entrenchments.
4. Ceremonies of Review, Inspection, Parades, Escort of the Colors, and Guard-Mounting.
5. Nomenclature of the Rifle, Sighting Drills, Position and Aiming Drills, and Deflection and Elevation Correction Drills.
6. Field Problems with Blank Ammunition.
7. Duties consistent with rank as cadet officers or non-commissioned officers in connection with the practical work and exercises.

All students not physcally disqualified are required to take the practical instruction in the collegiate course until the course has been completed.

During the first semester there will be three hours' drill per week, while the second semester will be devoted to two drills per week with one hour instruction in military science in the subjects as set forth in the following table:

Students who show aptitude for the military service are recommended for appoinmtent as second lieutenants in the Army. Positions in the Engineer Corps of the Army are open to certain students of the School of Engineering of the College. A list of students who have shown special ability in engineering is kept by the War Department in order to be able to locate good engineers in case of need. Graduates of the College are also selected for service in the Philipine Constabulary and are not required to take the mental examination if recommended by the College authorities.

RESERVE OFFICERS' TRAINING CORPS

By giving the above course in military science, this College is eligible, and has been designated by the War Department to main-

tain a Senior Division of the Training Corps for Reserve Officers. The primary object of this advanced training is to prepare young men to perform intelligently the duties of commissioned officers of the military forces of the United States, and it enables them to be thus trained with the least practicable interference with their civil careers.

The Reserve Officer's Training Corps is composed of all physically fit male students in the College, and consists of the basic and advanced courses.

The basic course is compulsory in the first two years of college attendance, and the advanced course is elective in the last two years of the College course.

During all four years the U. S. pays part of the expense for the uniform. First-year students, $36.00; second-year students, $9.00; third-year students, $36.00; fourth-year students, $9.00. Those students enrolled in the advanced course receive commutation of $16.00 per month for the remainder of the course, including one summer vacation, and are required to attend such summer camps as the Secretary of War may prescribe.

Transportation to and from summer camp is paid at the rate of five cents per mile and travel allowance for meals is paid, not to exceed $3.00 per day. At camp, students receive rations, quarters, laundry services, and pay at the rate of $1.00 per day.

Graduates from the Reserve Officers' Training Corps may be commissioned in the Officers' Reserve Corps in the lowest grade, i. e., as second lieutenants.

The primary object of the Reserve Officers' Training Corps is to train men to be efficient officers so that if the country should find a war on its hands the needed material for more efficient officers will be available.

Aside from this, the constant endeavor is to build up character, promote honor and true manhood, thereby making better citizens and inculcating that discipline which enables contact with the business world.

For, after all, discipline, or, rather, steadiness and respect for and interest in the work one is doing, is as necessary in business, the office or any trade or profession as in the army. Without this characteristic a man will not be able to stay long in one place, but will eventually become a "drifter" and a menace, more or less, to the community in which he happens to be.

Therefore the purpose of the Reserve Officers' Training Corps is to do all in its power to make upstanding men and the highest type of citizen, and at the same time train him to give the most intelligent service to his country in time of need.

Men who have had six months' training in the army will not be required to take any part of the course unless they so elect. Men who have served in the Student Army Training Corps will be given credit for the first year's training in the Reserve Officers Training Corps.

THE BASIC COURSE

FIRST YEAR—FRESHMAN

SUBJECTS AND SCOPE

Three Hours Per Week. 1 Credit

(Arrangement of subjects does not indicate the order in which they will be taught).

I ELEMENTARY SUBJECTS OF MILITARY TRAINING.

1. Theoretical Instruction:
   (a) Principles of the Organization and Administration of a Company.
   (b) Military Hygiene, First Aid, and Sanitation.
   (c) Military Courtesies and Customs of the Service.
   (d) Interior Guard Duty.
2. Practical Work:
   (a) Getting the Unit into Shape.
   (Organization of companies. Assignment to squads. Appointment of leaders and commanders).
   (b) Practical Application.
   (Demonstrations and exercises in first aid to the injured. Problems and demonstrations on sand table in camp sanitation. Construction of miniature models of camp sites, expedients, etc.)
   (c) Demonstrations and Tests.
   (d) Performance of Guard Duty.

II PHYSICAL TRAINING.

1. Practical Work:
   (a) Setting up Exercises.
   (Recruit instruction. Trained soldier instruction).
   (b) Mass Games and Mass Athletics.
   (c) College Athletics.
   Note.—An actual physical development of the individual student must be the result of this training. Sufficient record of physical measurements, weight, etc., should be kept to show actual results. Correct posture will be insisted upon.

III INFANTRY DRILL.

1. Theoretical Instruction:
   (a) Close and Extended Order.
   (b) Ceremonies.
   (Principles and minutia of inspections, reviews, parades, and escorts).

2. Practical Work:
   (a) Close and Extended Order Drills.
   (b) Ceremonies.
   (Participation in military ceremonies).

IV INFANTRY WEAPONS AND EQUIPMENT.

1. Theoretical Instruction:
   (a) The Infantry Pack.
   (Description, nomenclature, care and use).
   (b) The Rifle.
   (Description, nomenclature, care and handling. Elements of marksmanship).
   (c) The Bayonet.

2. Practical Work:
   (a) The Infantry Pack.
   (Adjustment. Making up. Wearing of pack in connection with exercises in III, 2 (a) and (b). Pitching shelter tent.)
   (b) The Rifle.
   (Taking down and assembling, blindfold test. Preliminary train-in in marksmanship. Range practice where practicable. Gallery practice. Intercollegiate competitions.)
   Note.—Range practice will be conducted at R. O. T. C. Instruction Camps for those students who have not had the opportunity for same at their institutions.
   (c) The Bayonet.

THE BASIC COURSE

SECOND YEAR—SOPHOMORE

SUBJECTS AND SCOPE

Three Hours Per Week. 1 Credit

(Arrangement of subject does not indicate the order in which they will be taught.)

I MILITARY SKETCHING AND MAP READING.

1. Theoretical Instruction:
   (a) Map Reading.
   (The instruction necessary to enable the student to read military maps with facility.)
   (b) Military Sketching.
   (The instruction necessary to enable the student to make road, outpost and position sketches with standard accuracy and speed.)

2. Practical Work.
   (a) Problems in Map Reading.
   (Demonstration on sand table man map. Problems on the map. Visibility of points, areas, etc.)
   (b) Sketching.
   (Necessary practice to enable student to pass a test for accuracy and speed in road sketch, outpost sketch and position sketch). Note.—Combined sketching should be undertaken whenever practicable for the purpose of developing an accurate contoured military map of the drill and maneuver areas.

II PHYSICAL TRAINING.

1. Theoretical Instruction.
2. Practical Work:
   (a) Setting-up Exercises.
   (b) Mass Games and Mass Athletics.
   (c) College Athletics.
   Note.—The object should be to develop real ability in instructorship.

III INFANTRY DRILL.

1. Theoretical Instruction.
   (a) Fundamentals of Leadership.
   (Bearing, dress, manner and voice of group leaders. How to give and receive orders and commands. Effect of good and bad example. Powers of a N. C. O. and how to use them. Obligations and responsibilities of a N. C. O. and how to meet them.)
   (b) Close and Extended Order.
   (Infantry Drill Regulations, School of the Company.)
   (c) Combat.
   (Principles governing the formations and conduct of the platoon and company. Applicable portions of Chapter III and IV, Infantry Drill Regulations.)
2. Practical Work:
   (a) Exercises and Demonstrations.
   (b) Participation with first year students. Exercise of functions of N. C. O. instructing first-year students.)
   (c) Practical exercises with unit.

IV INFANTRY WEAPONS.

1. Theoretical Instruction:
   (a) The rifle.
   (Interior and exterior ballastics.)
   (b) The Automatic Rifle.
   (Nomenclature, care, characteristics and employment of as an infantry weapon.)
   (c) The Machine Gun.
   (Nomenclature, care, characteristics and employment of as an infantry weapon.)
2. Practical Work:
   (a) The Rifle:
   (So much of preliminary instruction in markmanship as the individual needs for proficiency. Gallery practice. Intercollegiate matches. Range practice where practicable.)
   (b) The Automatic Rifle.
   (Taking down and assembling. Blindfold tests. Gun Drill. Demonstration firing where practicable.)
   (c) The Machine Gun.
   (Taking down and assembling. Blindfold tests. Gun drill. Demonstration firing where practicable.)

V MINOR TACTICS.

1. Theoretical Instruction:
   (a) Covering Detachments.
   (Patrol leading. Advance and rear guards. Outposts. Types of formation for security by day and at night. Selection and equipment of troops for the duty.)

2. Practical Work:
   (a) Covering Detachments.
   (Problems and exercises in patrol leading on sand table and map. Tactical walks. Demonstrations. Participation in tactical exercises with unit.)

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ADVANCED COURSE

FIRST YEAR—JUNIOR

SUBJECTS AND SCOPE

Five Hours Per Week. 3 Credits

(Arrangement of subjects does not indicate the order in which they will be taught.)

I FIELD ENGINEERING.

1. Theoretical Instruction:
   (a) Elements of Field Engineering.
   (Instruction to include the principles and methods of military field engineering in all types of trenches and obstacles. Organization of working parties and tasks. Selection of location for trenches. Concealment and camouflage.)
2. Practical Work:
   (a) Military Field and Engineering Problems.
   (Solution of military engineering problems based upon 1, (a) above. Demonstrations on sand table. Construction on sand table. Construction of miniature models all types of trenches and obstacles. Reconnaissance, location and laying out of trenches). Note.—Where practicable a trench system should be constructed. Each class, from year to year, enlarging, improving and repairing the initial works.

II PHYSICAL TRAINING.

1. Theoretical Instruction.
2. Practical Work:
   (a) Setting-up Exercises.
   (Participation as instructors of Basic Course students.)
   (b) Mass Games and Mass Athletics.
   (Participation as instructors of Basic Course students.)
   (c) College Athletics.
   Note.—Tte object should be to develop real ability in instructorship.

III INFANTRY DRILL.

1. Theoretical Instruction:
   (a) School of the Battalion in Close Order.
   (b) School of the Regiment in Close Order.
   ((At units maintaining regimental organization.)
2. Practical Work:
   (a) and (b) Drills and Exercises.
   (Participation with the unit in drills and exercises.)

IV INFANTRY WEAPONS.

1. Theoretical Instruction:
   (a) The Pistol.
   (Nomenclature, care, handling and use.)
   (b) Hand and Rifle Grenades.
   (Nomenclature, characteristics, care, handling. Tactical use.)
   (c) Trench Mortars and One-pounder Gun.
   (Nomenclature, characteristics. Power and limitations as an infantry weapon. Tactical use.)
2. Practical Work:
   (a) The Pistol.
   (Preliminary instruction for pistol practice. Firing, dismounted course, where practicable. Intra-mural competitions. Intercollegiate competitions.)
   (b) Hand and Rifle Grenades.
   (Exercises in carrying and throwing. Exercises by the Unit.
   (c) Mortars and One-pounder Gun.
   (Taking down and assembling. Blindfold tests. Gun and mortar drills. Exercises in handling in connection with tactical exercises. Selection of positions. Exercises on map and tactical walks.)

V MINOR TACTICS.

1. Theoretical Instruction:
   (a) Offensive and Defensive Conduct of Small Units.
   (Combat reconnassance. Orders. Development. Advancing the attack. The fire attack. The asault. Position warfare. Approach marches. Organization of the ground. The company in suport, in reserve, and acting alone. Machine guns. One-pounder and light mortars. Ammunition supply.)
2. Practical Work:
   (a) Offensive and Defensive Conduct of Small Units.
   (Map maneuvers. War game. Problems on map and sand table. Tactical walks. Participation with unit in tactical exercises. Demonstrations.)

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ADVANCED COURSE

SECOND YEAR—SENIOR

SUBJECTS AND SCOPE

Five Hours Per Week. 3 Credits

(Arrangement of subjects does not indicate the order in which they will be taught.)

I MILITARY HISTORY AND POLICY OF THE UNITED STATES.

1. Theoretical Instruction:
   (a) Important campaigns and battles in the history of the United States and the tactical deductions therefrom.
   (b) History of the military policy of the United States including the period of the World War.
   (c) Economic History of the United States and the relations existing in our economic conditions and those of Europe, Asia and South America and its relations to military history.

II PHYSICAL TRAINING.

1. Theoretical Instruction.
2. Practical Work:
   (a) Setting-up Exercises.
   (Participation as instructors of Basic Course students.)
   (b) Mass Games and Mass Athletics.
   (Participation as instructors of Basic Course students.)
   (c) College Athletics.
   Note.—The object should be to develop real ability in instructorship.

III INFANTRY DRILL.

1. Practical Work:
   (a) Drills and Tactical Exercises.
   (Participation as leaders and instructors of the Unit.

IV MILITARY LAW AND RULES OF LAND WARFARE.

1. Theoretical Instruction:
   (a) The Articles of War.
   (The articles of war explained. Relation of the Military to Civil Authority.)
   (b) Courts Martial.
   (Jurisdiction. Organization. Procedure.)
   (c) Evidence.
   (So much of the rules of evidence as is contained in the Manual for Courts Martial, U. S. Army.)
   (d) Rules of Land Warfare.
   (General knowledge of the principles.)
2. Practical Work:
   (a), (b), and (c). Moot Courts.

V MINOR TACTICS.

1. Theoretical Instruction:
   (Chapter II and Chapter IV, I. D. R. to include the company.)
2. Practical Work:
   (Problems of minor tactics. Map maneuvers. Problems and illustrative work on map and sand table. War game. Tactical walks. Participation with unit in tactical exercises.)

VI ADMINISTRATION.

1. Practical Work:
   (a) Company Paper Work.
   (So much as lieutenant should know.)
   (b) Company Administration.
   (Management and interior economy of a company.)

VII MUSKETRY.

1. Theoretical Instruction:
   (a) Principles of Musketry.
   (Range estimation. Target designation. Fire distribution. Communication, signals and transmission of firing data. Use of cover. Fire discipline. Application of fire. Conduct of fire to include the functions of a company commander as may be necessary for an intelligent understanding.)
2. Practical Work:
   (a) Musketry Problems:
   (Exercises with landscape targets. Tactical walks. Firing on auxiliary landscape target where practicable. Exercises on the map and on the ground.)

Students entering the College are advised that they must get their uniforms through the College, and they will be required to deposit the full amount of the uniform (about $45.00) with the Registrar. The Government allowance will be paid to the student at the end of the school year. The College prescribes the uniform to be worn, and will not accept any uniform obtained from other sources.

Students are required to wear the uniform on the days that military instruction is held, and may wear them all the time if they so desire; but the uniform must be in good condition and able to pass inspection at all times. If it at any time is unsnghtly, dirty and worn, the student will be required to put it in the proper condition or buy a new one.

EQUIPMENT

The War Department has supplied the College with 600 U. S. magazine rifles, caliber .30, model of 1903, and 600 sets of latest model infantry equipment. Machine guns, automatic rifles, 37 m-m (one pounder) guns, trench mortars, revolvers and automatic pistols, swords, target supplies, engineering material; ammunition for all rifles and cleaning material are furnished to the College free of charge by the War Department.

ORGANIZATION

All young men of college grade are required to enroll in the Reserve Officers' Training Corps. Students below college grade will not be required to take military training.

Those who are entitled to be excused must at the time they enroll make a written application to be placed on the unassigned list. All students who are on the unassigned list will be excused from military duty.

The corps of cadents is organized into a battalion consisting of a band, drum corps, and four companies.

Each year the officers and first sergeant of the best drilled company will receive silver and bronze medals, and the three best drilled cadets in the best drilled company will receive a gold, silver and bronze medal in order of merit.

The beautiful Drummond cup will be awarded annually for individual excellence in the Reserve Officers' Training Corps.

Officers are selected from members of the advanced course of the Reserve Officers' Training Corps. Non-commissioned officers are selected from members of the basic course of the R. O. T. C.

RESERVE OFFICERS' TRAINING CORPS UNIT, OKLAHOMA A. AND M. COLLEGE

LESTER T. GAYLE, JR., Captain, U. S. A., Retired,
Professor of Military Science and Tactics.

MALCOLM E. CRAIG, Capt., Infantry, U. S. A.,
Assistant Professor of Military Science and Tactics.

JOHN H. FERGUSON, 1st Sergeant, Detached Enlisted List,
Assistant.

EDWARD L. SNYDER, 1st Sergeant, Detached Enlisted List,
Assistant.

GORDON L. LUPTON, Sergeant, Detached Enlisted List,
Assistant.

HERMAN H. HANSEN, Sergeant, Detached Enlisted List.

FIELD AND STAFF

Cadet Major
Rey, Walter A.
Battalion Adjutant
Briggs, A. B. Cadet 1st Lt.
Battalion Sergeant-Major
Campbell, W. D.
Cadet Color Sergeants
Love, F. D.
Shelton, L. C.
Cadet Sergeant Bugler
Zink, D. D.

BUGLE AND DRUM CORPS

Brown, R. O.
Cockrane, D.
Kaiser, E. C.
Stokesberry, R.
Walsh, C. L.
Wells, W. H.
Wolver, W. N.

COMPANY A

Cadet Captain
Tesone, Silver
Cadet First Lieutenants
Park, H. C.
Kirkland, I. H.
Cadet Second Lieutenant
Hildebrand, R.
Cadet First Sergeant
Morrison, E.
Platoon Sergeants
Witt, C. A.
Dillon, H.
Platoon Guides
Cobb, S. S.
Cogburn, B.
Schedler, E. W.
Fitzgerald, M.
First Squad
McMurtrey, J., Corporal.
Stavely, C.
Hawes, A. B.
Cheaney, L.
Finney, W. F.
Barrett, C.
Bagby, E.
Gearhart, H. B.
Second Squad
McCullough, D., Corporal
Knight, I. T.
Long, L. W.
Allender, H.
Hughett, M. L.
Ellis, R. W.
Cook, C. A.
Driskill, J. B.
Third Squad
Moore, W. F., Corporal
Merical, W. O.
Chouteau, K.
Crabb, J. L.
Rogers, T.
Howland, C. C.
Smiley, K. W.
Wilson, A. E.
Fourth Squad
Holt, Wm., Corporal
Schlosser, J. W.
Ethridge, L.
McMillen, J.
Riley, R.
Castle, E.
Hobbs, E.
Looney, T.
Fifth Squad
Clarke, D., Corporal
Ellington, E.
Griffin, L.
Toler, W. D.
Hammond, F.
Lynds, C. W.
Hawker, W.
Wimpey, E.
Sixth Skuad
Robertson, M., Corporal
Simmons, C. L.
Withgott, C. B.
Whittenberg, F.
Drehr, E.
Reynolds, B.
Latchar, D.
Young, N.
Montgomery, J.
Neaves, M. J.
Van Valkenberg, N.

COMPANY B

Cadet Captain
Goodwin, R. Q.
Cadet First Lieutenants
Hendrix, R. B.
Dickerson, L. L.
Cadet Second Lieutenant
Reed, G. N.
Cadet First Sergeant
Williams, H.
Platoon Sergeants
Nicholson, B.
Richardson, M.
Platoon Guides
McConkey, R.
Faucher, O. J.
Michael, Edgar
Atkinson, J.
Shelton, L. C.
First Squad
Stanberry, H. A., Corporal
Race, M.
Crutchfield, E.
Burleson, C. L.
Gassaway, F.
Ewing, H.
Second Squad
Sharp, C., Corporal
Keen, C.
Donnell, G. L.
Bivens, B.
Foster, D.
Keeth, J. R.
Copeland, J.
Third Squad
Davis, C. F., Corporal
Hemphill, J.
Bruner, J.
Delay, P. E.

Hampton, L. B.
Crawford, F.
Fellows, L.
McAdams, T. P.

Fourth Squad
Fox, O. O., Corporal
Henson, H. H.
Bevins, C.
Bivens, D.
Dilbeck, A.
Burrough, R. J.
Taylor, F. L.
Beeler, L.

Fifth Squad
Kirkpatrick, J. E., Corporal
Keys, C.
Feather, O.
Argo, V.
Avenett, R. J.
Eppler, J. E.
Coryell, I. C.

Sixth Squad
Hopkins, O., Corporal
Lucas, D.
Biscup, W. F.
Baugh, K. S.
Barrett, Wm.
Capalungan, A.
Craig, F.

Seventh Squad
Tatum, H. A., Corporal
Gelder, G.
Baker, G. B.
Fields, J. B.
Brattin, M.
Foster, I. L.

COMPANY C

Cadet Captain
Stafford, F. T.

Cadet First Lieutenants
Green, G. N.
Calame, C. E.

Cadet Second Lieutenant
McCullough, L. E.

Cadet First Sergeant
Lemmon, H. D.

Platoon Sergeants
Taylor, C. R.
Hudiburg, C. Z.

Platoon Guides
Pannel, J.
Cunyus, P.
Davis, P.
Daniels, H.

First Squad
McWethy, M., Corporal
Jansen, R. E.
McMurtrey, L.
James, G.
Hitt, J.
Haney, B.
Harris, P.
Hughes, R.

Second Squad
Ragan, J. T., Corporal
Moore, L.
Goranflo, E.
Lanphere, W. B.
Noble, W. S.
Moore, S. H.
Klepper, W.
Kocchel, E. S.

Third Squad
Hassler, F. R., Corporal
Strozier, A.
Pemberton, M.
Gould, K. E.
Lowrey, L. C.
Jones, C. M.
Leachman, C. E.
Jester, C.

Fourth Skuad
Sale, R. B., Corporal
Butler, F.
Rohman, O.
Hamilton, M.
Nutter, E.
Hart, R. L.
Penny, G.

Fifth Squad
White, H. J., Corporal
Cheatham, J.
Matkin, H.
Haworth, A.
Newman, J. R.
Kinkead, C.
Ingram, C.

Sixth Squad
Lynch, L. B.
Willard, R., Corporal
Olcott, L. E.
Henderson, I. L.
Hatfield, E.
Keepers, E.
Melton, L. D.

Seventh Squad
Carter, F., Corporal
Bishop, R. H.
Ellis, R. W.
Mason, J.
Gaddis, P.
Johnson, F. L.

COMPANY D

Cadet Captain
Carleton, H.

Cadet First Lieutenants
Taylor, C. P.
Steele, M. G.

Cadet Second Lieutenant
Moore, J. E.

Cadet First Sergeant
Wallace, .

Platoon Sergeants
Toler, G.
Maness, V. L.

Platoon Guides
Grow, H. R.
Bonner, L.
Carpenter, C.
Kirkpatrick, W.

First Squad
Goode, L. W., Corporal
Dean, C.
Wright, H. A.

Triplett, W. G.
Williams, J. L.
Smith, O. P.
Rosebush, A.
Wood, Z. E.

Second Squad
Ellithorpe, R., Corporal
Snowden, I. C.
Gould, C.
Pitts, J.
Farrington, P. L.
Talley, B. B.
Smith, W.
Shapley, R. F.

Third Squad
Marse, W. O., Corporal
Childers, M.
Swanner, H. T.
Stout, O.
Romine, G.
Smith, C.
Wilson, V.

Fourth Squad
Rhoades, P. J., Corporal
Couch, E.
Simpson, L.
Stockton, H.
Peeler, L. .
Wells, L.
Wail, F.
Scarlett, R.

Fifth Squad
Moore, G. A., Corporal
Johnston, W. L.
White, P. F.
Martin, L. R.
Wiley, F. J.
Crawford, J. C.
Mitchell, R.
Wilson, R. L.

Sixth Squad
Willham, O., Corporal
Scott, I. C.
Ross, W.
Sanders, Q. A.
Roberts, M. O.
Ball, W. L.
Winkler, S.
Sereiber, L.
Parks, A.
Holford, G. M.
Michael, Edwin
Witt, H. V.

THE EXTENSION DIVISION

JAMES A. WILSON, *Director*

All lines of Extension activities in agriculture and home economics of the Agricultural and Mechanical College and United States Department of Agriculture in Oklahoma are carried on under the direction and general supervision of the Director of Extension. The heads of the various departments of the College are considered final authority on all subject matter problems. In addition to the Director, there is a supervisory force composed of an Assistant Director, an Assistant State Agent, Assistant Director of Home Demonstration work, five district agents and one assistant district agent for the men agents, two district and two assistant district agents for the women agents and one negro district agent for colored agents.

The work of the Extension Division is carried on under twelve projects as follows: Administration, Printing and Distribution, County Agents, Boys' Club Work, Home Demonstration Agents and Girls' Club Work, Rural Sanitation, Poultry Club Work, Dairy Extension Work, Horticulture and Gardening, Livestock Extension Work, Extension Work for Colored Men and Boys and Extension Work for Colored Women and Girls.

Including the supervisory and clerical forces there are one hundred fifty-four persons employed in the Extension Division. There are sixty-seven county agents, thirty-seven home demonstration agents, and fifteen colored agents for work with negroes.

COUNTY AGENT WORK

The county agents are the direct representatives of the A. and M. College and the U. S. Department of Agriculture in their respective counties. They are employed under a cooperative agreement between the National Department of Agriculture, the Agricultural College Extension Service and the respective counties. The work is supervised by the Extension Division of the A. and M. College.

The duties of the county agents are to give assistance and instruction to farmers in better methods of agriculture, including

farm practices and management, the raising and marketing of crops and livestock, etc., and to supervise practical demonstrations illustrating the same.

County agents assist in the organization of cow testing associations, pure bred livestock associations, pure seed breeders associations, livestock shippers associations, cooperative marketing and similar associations. They also encourage organization for educational development such as the County and Community Free Fair Associations, County Farm Bureaus, etc.

Since the method of the county agent is to teach by demonstrations rather than by lectures, his only means of reaching the community is through community organization. So he labors continually with three prime objects in view for the community; namely, organization, standardization and cooperation. The county agent seeks to organize the community in order that he may be able to reach the entire citizenship along all lines tending to the improvement of rural conditions. He is an advocate of standardization of farm products as a basic principle for securing better marketing conditions. He favors cooperation as a means of eliminating waste in marketing farm products and also as the most effective way of securing better roads, better schools, better churches, better homes and better contentment with rural life.

BOYS' CLUB WORK

The Boys' Club Work is supervised by the State Boys' Club Agent and his three assistants, and has for its object the instruction of rural boys in approved methods of crop, fruit and livestock production, and in conserving and increasing soil fertility with the view of increasing the financial conditions of the farmers of the future, thereby increasing the desire and providing the means for better homes, better schools, better social and moral conditions and thereby insuring better citizenship.

Club activities supervised for boys for 1921 are as follows: Corn, Grain Sorghum (Kafir, feterita, milo and darso), Cotton, Peanut, Wheat, Crop Rotation .(three crops), Pig (breeding and fattening), Calf (breeding, fattening and dairy), Sheep, Poultry, Bee, Potato and Fruit.

As an incentive to good club work, premiums were offered at township, county and state fairs and also scholarships to state fair schools and the A. and M. College. Reports from 41 counties in

1920 show that $7199.00 were offered at township fairs, $18,500.75 at county fairs and the premiums for club work at the two State Fairs amounted to $5999.00. There were 485 scholarship winners at the State Fair Schools. There were 5 boys who won Bankers' Scholarships in the A. and M. College valued at $200.00 each. Two boys won scholarships in the A. and M. College offered by two large commercial associations, making a total of seven scholarships in A. and M. College for the period of one year. As a further incentive, 3 boys won trips to the Southwestern Livestock Show at Atlanta, this trip being financed by the livestock breeders of the State, while 7 boys won free trips to the International Fat Stock Show at Chicago.

The total number of Boys' Club members enrolled for the year 1920 was 23,687. The boy and girl club members from local organizations together, there being 497 such organizations during the past year, each one having its regular officers and holding monthly meetings. Organizations of this character were perfected in 50 counties.

Instructional work along club lines is carried on through the personal efforts of the county agents by means of club rallies, short courses and contests, the county, district and club agents cooperating, and by means of bulletins and circular letters.

HOME DEMONSTRATION AGENTS AND GIRLS' CLUB WORK

The home demonstration agents encourage rural families to provide more and better food at low cost, encourage club members to obtain a better education, enable the girls and women on the farms to raise more and better poultry, thus increasing the State's meat supply, and increasing the family income. They endeavor to make life in rural communities more attractive and interesting and through all these avenues to make better homemakers and thus better Oklahoma citizens. These agents supervise the Canning, Poultry and Sewing Clubs for girls, and Home Demonstration Clubs for women.

The total number of girls enrolled during 1920 was 12,517 and 2000 women were enrolled in the Home Demonstration Clubs.

POULTRY CLUB WORK

This work is carried on in close cooperation with the county agents and the home demonstration agents, poultry club work being considered primarily a part of the home demonstration work. The Jackson Poultry Law, providing for the holding of poultry

shows at the rural schools of the State, has aroused intense interest in the keeping of more and better poultry all over the State. During the past year it has been almost impossible to meet all the demands made by people all over the State for assistance in poultry judging, culling and lecturing on poultry subjects. There have been held in the State during the past year not less than 880 poultry shows at state, county and community fairs together with school house fairs held under the provisions of the Jackson Poultry Law. As near as can be determined 8000 persons have made exhibits at these fairs and a total of not less than $22,000.00 has been paid in premiums to these exhibitors.

HORTICULTURE AND GARDENING

The purpose of this project is to assist the county agents and home demonstration agents in demonstration and lecture work in horticulture and gardening in connection with farmers' meetings, boys' and girls' club meetings, fairs and other work intended to increase the production of fruit and garden crops in all parts of the State where they may be profitably grown; also to conduct demonstrations in pruning vines and fruit trees and spraying for fruit and garden insect pests and give instructions on the general care of fruit and garden crops.

DAIRY EXTENSION WORK

The leader in charge of dairy extension works in close cooperation with the county and home demonstration agents, always conferring with them if at all practicable whenever a county is visited. The chief lines of work carried on are assisting in the purchase of improved dairy stock, lectures, demonstration exhibits at fairs, assistance in organizing junior dairy clubs, etc.

LIVESTOCK EXTENSION WORK

The purpose of this project is to assist the county agent and home demonstration agents in all work intended to increase the number of livestock kept on the farms of the State wherever feed conditions will justify such increase and to improve the quality of livestock kept in all parts of the State, to assist in the organization of pure bred livestock associations of all kinds, to provide lecturers for livestock breeders' associations and other organizations of farmers and stockmen, assist with livestock judging work at fairs, give instructions in livestock judging to boys' and girls' clubs and assist

in such other work as may be necessary to bring about greater efficiency among the farmers and stockmen of the State in breeding, feeding and handling of livestock of all kinds.

RURAL SANITATION

The object of this project is to give instruction and conduct demonstrations in rural sanitation, healthful arrangement of farm homes and country schoolhouses, prevention of disease, eradication of harmful insects, etc. The results obtained have been very satisfactory and greatly appreciated by the country people. The work is greatly needed, as sanitary conditions in the country as a rule are not so good as in the cities and larger towns. As a result of this work in several counties in the State, all the rural schools have fixed the wells to prevent surface water draining into them, and have made their toilets flyproof. Also many other improvements along sanitary lines follow the active campaigns carried on under this project.

NEGRO WORK

Extension work in Agriculture and Home Economics for negroes under the Smith-Lever Act is carried on in this State in cooperation with the State Colored Agricultural and Normal University at Langston. It is under the immediate supervision of a colored district agent with headquarters at Langston. The Director of Extension is a member of the Board of Regents of the Langston University.

There are 8 men and 4 women colored agents working in counties having large negro farming populations. The colored agents, both men and women, give a great deal of attention to boys' and girls' club work, making very creditable exhibits at the State Fairs. Negro farmers, especially the women and boys and girls, take great interest in demonstration work and have done very commendable work. Where the work with negroes has been done the longest, good results are very evident.

REGISTER OF STUDENTS

The classification of students is indicated by the following abbreviations:

Agri., School of Agriculture; V. A., Vocational Agriculture; M. E., Mechanical Engineering; C. E., Civil Engineering; E. E., Electrical Engineering; Arch., Architecture; Ch. E., Chemical Engineering; H. E., School of Home Economics; V. H. E., Vocational Home Economics; S. and L., School of Science and Literature; Edu., School of Education; V. E., Vocational Education; C. and M., School of Commerce and Marketing; V. M., School of Veterinary Medicine; Sec., Secondary School; Bus., Business; P. C. A., Practical Course in Agriculture; P. C. E., Practical Course in Engineering; S. S., Summer School; 1-2, first and second semester, respectively.

GRADUATE STUDENTS

Carter, Zaida, B. S., 1920	Stillwater
Chandler, Emma, B. S., 1907,	Stillwater
Fellows, Iris, B. S., 1917	Stillwater
Hall, Georgia, B. S., 1920	Stillwater
Hastings, Alice, B. S., 1905	Stillwater
Kane, Cora, B. S., 1920	Stillwater
McKee, Mrs. Theo. B. S., 1906	Stillwater
Moore, Chas., B. S., 1920	Waukomis
Moore, Helen K., B. S., 1916	Stillwater
Murphy, Mrs. H. F., B. S., 1920	Stillwater
Schnurr, Augie, B. S., 1918	Stillwater
Selph, Layla, B. S., 1918	Stillwater
Shiflett, H. D., B. S., 19913	Stillwater
Talbott, Nora A., B. S., 1910	Stillwater
Walters, Minnie, B. S., 1910	Stillwater

UNDERGRADUATE STUDENTS

Adair, Alton	Engr., Fr.	1-2	Stillwater
Adair, Mrs. Florence	H. E., Soph.	1-2	Stillwater
Adair, Isaac	Special	SS-1-2	Stillwater
Adams, Arles	V. A.,	1	Hammon
Adams, Georgia	Bus.	SS-1	Stillwater
Adams, Kriewitz	Special	1-2	Fairfax
Adams, Paul G.	Agri., Jr.	1-2	Perry
Adkins, Jessie Noel	H. E., Fr.	1	Walters
Adrean, Vernon L.	Special, C. and M.	1	Sand Springs
Ahrberg, Fred W.	Agri., Sr.	1	Stillwater
Akins, Nellie	Special	SS-1-2	Stillwater
Albright, R. H. G.	C. and M., Soph.	1-2	Sulphur
Aldredge, Clarice	Edu., Sr.	SS-1-2	Manchester
Alexander, Frank	V. A.	1-2	Dewar
Allen, Crowder	Sec.	SS-1-2	Oklahoma
Allen, Walter S.	V. A.	SS-1	El Reno
Allender, Herbert	Engr., Fr.	1-2	Elk City
Allison, Athal	Bus.	SS-1-2	Perkins

Allnut, A. C.	C. and M., Fr.	1-2	Stillwater
Allnut, G. W.	C. and M. Fr.	1	Stillwater
Amos, Shelby C.	Special	SS-1-2	Stillwater
Anderson, Edwin V.	Special	1-2	Oklahoma
Anderson, A. E.	Engr., Fr.	2	Sapulpa
Anderson, Mary Louise	S. and L., Special	1-2	Gotebo
Argo, Victor	Agr., Fr.	1-2	Stroud
Armstrong, Gladys	H. E., Fr.	1-2	Panhandle, Texas
Armstrong, Glenn	Sec.	1-2	Panhandle, Texas
Arnold, Marvin	Agr., Fr.	1-2	Beggs
Arrington, Chas.	Ch. Engr., Sr.	1-2	Lindsay
Ash, Dorothy	Sec.	1-2	Cleora
Atkinson, Cressie	S. and L., Fr.	1-2	Wichita Falls, Texas
Atkinson, John	C. and M., Soph.	1-2	Hobart
Atkinson, R. C.	Engr., Soph.	1-2	Stillwater
Atwood, Leta	Sci. and L., Fr.	1	Stillwater
Atwood, Viola	Sec.	1	Stillwater
Ault, Wayne	C. and M., Soph.	1-2	Blackwell
Austian, Ida P.	H. E., Fr.	1-2	Sparks
Avara, James V.	V. A.	SS-1-2	Alto, Texas
Avenett, R. J.	Engr., Fr.	1-2	Goodwell
Badgley, Eva	Edu., Fr.	1	Canton
Badgley, Reva	Sec.	SS-1-2	Canton
Bagby, Edward	Engr., Fr.	SS-1-2	Stillwater
Bagby, Virginia L.	Special	SS-1-2	Stillwater
Bailes, Murray M.	V. A.	-2	Stigler
Bailey, Robert	V. A.	-2	Sparks
Baird, Claud	Special	SS-1-2	Stillwater
Baird, Inez	V. H. E.	1-2	Guthrie
Baird, Ray O.	V. A.	1-2	Guthrie
Baker, George B.	Edu., Fr.	1-2	Sand Springs
Baker, Oral	Engr., Soph.	1-2	Stillwater
Baldwin, Bertram	C. and M., Fr.	1-2	Anadarko
Baldwin, Kenneth A.	M. E., Jr.	1	Anadarko
Balenseifen, Effie	Edu., Soph.	1-2	Okeene
Balenseifen, Rilla	C. and M., Fr.	1-2	Okeene
Ball, W. L.	Special	1-2	Alanreed, Texas
Banks, Hugh L.	C. and M., Sr.	1-2	Hobart
Barber, H. G.	V. A.	1	Edmond
Barker, Thomas P.	C. and M., Fr.	-2	Blair
Barnett, Luther E.	V. A.	SS-1	Elmore City
Barney, Mayme	Bus.	1	Cushing
Barney, W. E.	C. E., Jr.	1	Cushing
Barrett, C. F.	S. and L., Fr.	1-2	Oklahoma
Barrett, F. L.	Engr., Soph.	1-2	Claremore
Barrett, W. M.	S. and L., Fr.	1	Claremore
Barron, Merle W.	C. E., Jr.	1-2	Stillwater
Bartholomew, Chas. A.	Bus.	SS-1-2	Stillwater
Bartow, Dorothy	Sec.	SS-1-2	Okfuskee
Barton, Ray B.	C. and M., Special	1-2	Mangum
Bass, Edgar W.	C. and M., Special	SS-1-2	Mangum
Bass, Zella	H. E., Jr.	1-2	Enid
Bateman, Clara	Edu., Jr.	1-2	Soper
Baty, Abbie	H. E., Soph.	1-2	Stillwater
Baty, Anna	Edu., Sr.	1-2	Stillwater
Baugh, H. T.	Special, Dairy	1	Meeker
Baugh, Kenneth S.	Engr., Fr.	1-2	Meeker
Baum, H. G.	Sec.	1	Savanna
Bauman, Cecal	Agr., Fr.	1-2	Watova
Beaman, Ross S.	C. and M., Special	SS-1-2	Stillwater
Beanblossom, Floyd Z.	Agr., Soph.	1-2	Girard, Ill.
Beasley, Willa Grace	H. E., Fr.	SS-1-2	Stillwater
Beck, Elmer W.	Agri., Special	-2	Duke
Beeler, Lloyd	C. and M., Fr.	1-2	Yukon
Beeson, Evlyn	Special	1-2	Stillwater
Beil, Cecil W.	E. E., Soph.	1-2	Sapulpa
Beltz, Aaron	C. and M., Fr.	-2	Ingersoll
Bendt, Isabella	Sec.	1-2	Balko
Bennett, H. H.	V. A.	-2	Indiahoma
Bentley, Louise	H. E., Jr.	1-2	Stillwater
Benton, Alfred	Special	-2	No home address
Berkhimer, Miriam	H. E., Sr.	1-2	Humboldt, Iowa
Berry, Dora	Sec.	SS-1-2	Ripley
Berry, Ruby	Sec.	SS-1-2	Ripley
Berryman, Gladys	Bus.	SS -2	Stillwater
Bessire, Thomas L.	C. and M., Soph.	1-2	Headrick
Bevins, Clifford	Engr., Fr.	1-2	Blackburn
Bieberdorf, Fred W.	Sec.	1-2	Stillwater

Bieberdorf, G. A.	Agr., Jr.	1-2	Stillwater
Biggerstaff, O. H.	Trades	1	Medford
Billman, C'ara	Edu., Soph.	1-2	Deer Creek
Billman, Helen	H. E., Soph.	1-2	Deer Creek
Biscup, Walter	Engr., Fr.	1-2	Shanghai, China
Bishop, Lee Roy	V. A.	SS-1-2	Dublin
Bishop, Roland H.	Engr., Fr.	1-2	Stillwater
Bishop, Mrs. W. H.	Educ., Special	1-2	Stillwater
Bishop, W. J.	Agri., Soph.	1-2	Cabool, Mo.
Bittle, Ada A.	C. and M., Fr.	1-2	Orlando
Bittle, Alma E.	Sec.	1-2	Orlando
Bivens, Bert	Engr., Fr.	1-2	Seiling
Bivins, Duce D.	Agr., Fr.	1-2	Walters
Black, Lizabel	H. E., Sr.	SS-1-2	Milwaukee, Wis.
Black, Marion	Special	1-2	Lamont
Black, Mary Ann	H. E., Sr.	SS-1-2	Milwaukee, Wis.
Blackburn, James C.	V. A.	SS-1-2	Shawnee
Blackketter, Doy D.	V. A.	1-2	Leedy
Blake, Joe C.	Trades	-2	Oklahoma
Blake, Joel W.	Engr., Fr.	1-2	Wagoner
Blakely, Floyd	V. A.	1	Antlers
Blakely, Horace	Sec.	1-2	Antlers
Blaney, James L.	Engr., Fr.	1	Marshall
Blattler, Paul	C. and M., Soph.	1-2	Enid
Bliss, Harmon E.	V. A.	1	Newkirk
Blouin, Ruth	Bus.	-2	Stillwater
Boerner, Carl	E. E., Jr.	1-2	Sparks
Bohrer, Maude	Special	SS-1-2	Stillwater
Bolen, Morgan	V. A.	SS-1	Stonewall
Boler, Bernice Josephine	Sec.	1-2	Stillwater
Bolin, E. L.	Educ., Jr.	SS-1-2	Stillwater
Bolin, Mrs. E. L.	Special	SS -2	Stillwater
Bollinger, Dora	H. E., Jr.	1-2	Talihina
Bollinger, P. H.	C. and M., Sr.	1-2	Kiowa
Bolyard, N. W.	Ch. E., Soph.	1-2	Lindsay
Bond, Miller H.	A. E., Soph.	SS-1-2	Enid
Bondurant, Roy L.	V. A.	1-2	Bomar
Bonner, Lawrence	Engr., Soph.	1	Kingfisher
Bossart, Iris	Special	1	Kremlin
Boucher, Hazel	H. E., Fr.	1-2	Bristow
Bonquot, Deilia	Edu., Special	-2	Woodward
Bowles, Sidney J.	Agri., Fr.	1-2	Vinton, La.
Bowline, A. L.	V. A.	1-2	Delbi, Colo.
Bowling, A. V.	V. A.	1-2	Gethsemane, Ky.
Boyd, Faye	H. E., Sr.	1-2	Hooker
Boyd, Frank	C. and M., Soph.	1	Kremlin
Boyd, Ted	Trades	1-2	Norman
Boyers, Kathryn	Edu., Fr.	1-2	Manchester
Brack, Winnie V.	H. E., Special	1-2	Anadarko
Bracken, Clifford	Agri., Soph.	1-2	Okmulgee
Bradley, Madeline	Sci. and L., Fr.	-2	Oklahoma
Bradshaw, C. A.	Agri., Jr.	1-2	Nowata
Braly, B. B., Jr.	Agri., Sr.	1-2	Leonard, Texas
Brandley, F. A.	V. A.	1	El Reno
Brandon, Lillard	Sec.	1	Tuttle
Brantley, Flora	Edu., Soph.	1-2	Goodwell
Brattin, Letha	C. and M., Fr.	SS-1-2	Stillwater
Brattin, Merle A.	Agri., Fr.	1-2	Stillwater
Brattain, Wm. F.	Special	-2	Stillwater
Briggs, A. Bernae	Edu., Sr.	SS-1-2	Stillwater
Briggs, G. A.	Edu., Sr.	SS-1-2	Stillwater
Briggs, Helen Lenore	H. E., Fr.	SS-1-2	Stillwater
Briggs, James L.	Agri., Special	SS-1-2	Red oak
Briggs, Lena	H. E., Jr.	SS-1-2	Stillwater
Briscoe, Frank	Agri., Jr.	1-2	Perry
Brock, C. R.	V. A.	1	Purcell
Brooks, Alma	H. E., Soph.	1-2	Ardmore
Brooks, Robt. N.	C. and M., Sr.	SS-1-2	Chickasha
Brower, Ruth	Bus.	SS-1-2	Stillwater
Browne, Bernard G.	Engr., Fr.	SS-1-2	Paragould, Ark.
Brown, B. H.	Ch. E., Soph.	-2	Malden, Mass.
Brown, D. J.	Sec.	1-2	Cement
Brown, Joe	Sec.	1-2	Ardmore
Brown, Rew W.	E. E., Sr.	1-2	Oklahoma
Brown, Robert O.	C. and M., Fr.	1-2	Hillsdale
Bruner, Joe J.	Engr., Fr.	1-2	Stillwater
Bryan, Kenneth V.	Agr., Sr.	1-2	Stillwater
Buckles, Fred Lee	V. A	SS-1	Edmond
Bull, Beach R.	Agri., Soph.	1-2	Wakita

Buller, A. J.	V. A.	SS-1-2	Goltry	
Bulling, Edna	Edu., Fr.	1-2	Orlando	
Bullock, C. J.	Agri., Fr.	1	Lindsay	
Bullock, Nellie	H. E., Soph.	SS-1-2	Okemah	
Bunyard, Claude L.	Agri., Sr.	SS-1-2	Bixby	
Burk, Othie G.	V. A.	1-2	Wakita	
Burleson, Cressie L.	C. and M., Fr.	1-2	Minco	
Burnham, Donald R.	Agri., Graduate	1	Lawton	
Burroughs, Roy J.	V. A.	1-2	Stillwater	
Burross, James O.	Agri., Fr.	1-2	Glenn	
Burton, Mrs. Bertha	Sec.	SS -2	Stillwater	
Bushyhead, Edward R.	S. and L. Special	-2	Claremore	
Bushyhead, Oowala	H. E., Special	-2	Claremore	
Butcher, Mabel	Sec.	SS-1-2	Ingalls	
Butler, Dean	Sec.	1-2	Soper	
Butler, Frank T.	Engr., Fr.	1-2	Tulsa	
Butler, Lancey S.	Agri., Sr.	SS-1	Waukomis	
Butler, O. T.	M. E., Sr.	1-2	Waukomis	
Butler, Ruth	H. E., Jr.	1	Guthrie	
Buzzard, Agnes	Edu., Special	-2	Stillwater	
Byron, W. Clifford	Trades	1	Watova	
Cady, Hazel	Edu., Fr.	1-2	Red Rock	
Calame, C. E.	E. E., Sr.	1-2	Stillwater	
Calavan, Louis	C. and M., Fr.	SS-1-2	Stillwater	
Caldwell, Zenil	Sec.	1-2	Stillwater	
Calhoun, C. H.	V. A.	SS-1-2	Marlow	
Calmes, Bill	C. and M., Fr.	1-2	Clinton	
Campbell, Elizabeth	S. and L., Fr.	1-2	Geary	
Campbell, Helen	H. E., Sr.	1-2	Camp Pike, Ark.	
Campbell, Wm. D.	Agri., Soph.	1-2	Geary	
Campbell, Walter F.	Agri., Soph.	1-2	Okmulgee	
Canfield, Don W.	A. E., Soph	SS-1-2	Tulsa	
Canfield, Roy E.	Ch. E., Soph.	1-2	Yale	
Cantwell, Christine	S. and L., Fr.	1-2	Stillwater	
Capalungan, V. A.	Agri., Fr.	1-2	San Nicholas, Philippine Is.	
Capalungan, Florencio	Sec.	-2	San Nicholas, Philippine Is.	
Caperton, Polk	V. A.	SS-1-2	Centrahoma	
Carleton, Howard	Agri., Jr.	1-2	Stillwater	
Carlisle, Robert	Trades	1-2	Stillwater	
Carpenter, Carlisle H.	Agri., Soph.	SS-1-2	Warner	
Carroll, Edward L.	V. A.	SS-1-2	Valley Springs, Ark.	
Carroll, Jeff	Sec.	1	Valley Springs, Ark.	
Carter, Frank	Agri., Fr.	1-2	Ardmore	
Carter, Harvey A.	Trades	1	Granton	
Carter, Joseph T.	Agri., Soph.	SS-1-2	Newmarket, Tenn.	
Carter, Mrs. Verna	H. E., Special	1-2	Waco, Texas	
Cash, James H.	Sec.	1	Stillwater	
Cash, Warren	Sec.	1	Stillwater	
Cassel, Lark	V. A.	-2	Pocasset	
Castle, Ernest L.	Agri., Fr.	1-2	Duncan	
Cawley, Jack	V. A.	SS-1	Perkins	
Cawood, Ernest R.	Sec.	1-2	Stillwater	
Cawood, Howard	Bus.	SS-1-2	Stillwater	
Cermak, Lizzie	H. E., Sr.	SS-1-2	Red Rock	
Cermak, Wesley	Sec.	1-2	Red Rock	
Chaat, Robert P.	C. and M., Fr.	-2	Lawton	
Chambers, Harry M.	Agri., Soph.	1-2	Stillwater	
Chancey, Homer	V. A.	1	Bryant	
Chapman, Merle M.	C. and M., Soph.	-2	Shawnee	
Chappell, Stephen R.	C. and M., Special	1-2	Enid	
Chase, F. L.	Agri., Special	1-2	Stillwater	
Chase, H. Price	C. and M., Fr.	1-2	Tulsa	
Cheaney, Leonard	Agri., Fr.	1	Snyder	
Cheatham, James Lewis, Jr.	Engr., Soph.	SS-1-2	Warwick	
Cheatham, Vera	H. E., Soph.	1-2	Warwick	
Chenoweth, Elizabeth	Secondary	1-2	Panhandle, Texas	
Childers, Merritt G.	Agri., Fr.	1-2	Stillwater	
Chouteau, Karl	Agri., Fr.	1-2	Nowata	
Church, Ercyle	Secondary	1-2	Stillwater	
Church, Merle R.	Engr., Soph.	1-2	Bartlesville	
Clark, Aubrey Ernest	V. A.	1-2	Mangum	
Clark, Everett R.	V. A.	1-2	Mangum	
Clarke, Donald George	Agri., Soph.	1	Henryetta	
Clark, Mary	H. E., Fr.	SS-1-2	Mangum	
Clause, Grace Ellen	S. and L., Soph.	1-2	Helena	
Clause, Emma Lillian	Special	-2	Helena	
Clausen, Chester A.	Agri., Sr.	1-2	Stillwater	
Clayman, Milton	Engr., Fr.	1-2	Bartlesville	

Clingenpeel, Lova	Music, Special		-2	Stillwater
Cloud, Arthur F.	Engr., Fr.		1-2	Stillwater
Cloud, Grace	Bus.		-2	Stillwater
Clymer, Alma	H. E., Fr.		1-2	Oklahoma
Cloutier, Deoda	V. A.		1-2	Oklahoma
Cobb, Beckham	M. E., Spec.	SS-	1-2	Stillwater
Cobb, Harry F.	V. A.		1-2	Wagoner
Cobb, Hutton V.	V. A.	SS-	1-2	Vinita
Cobb, Irene Elizabeth	H. E., Soph.	SS-	1-2	Wagoner
Cobb, Kedzie	Trades		1-2	Wagoner
Cobb, Lidamae	H. E., Jr.		1-2	Eddy
Cobb, S. S., Jr.	C. and M., Special		1-2	Wagoner
Coblentz, Mrs. Annie	Special		1	Whitewater, Kans.
Cochrane, Dwight U.	Engr., Fr.		1	Kingfisher
Coffer, George V.	S. V. A.		1-2	Hastings
Cogburn, Berl	C. and M., Fr.		1-2	Coalgate
Colbert, Richard T.	C. and M., Soph.	SS-	1-2	Ada
Cole, Gertrude	Voc. H. E.		1-2	Perry
Coleman, C. P.	Agri., Special		-2	Walters
Coleman, Lester L.	Engr., Sr.		2-	Red Rock
Colvin, Ethel	H. E., Soph.		-2	Roosevelt
Combs, Branson W.	V. A.		1	sMulhall
Compton, Ralph	Bus.		1-2	Stillwater
Connor, Lon Jay	Special		1-2	Vinita
Cook, Claude Allen	Agri., Fr.		1-2	Madill
Cook, Oma	Secondary		1-2	Hayward
Cook, Winifred	C. and M., Fr.		1-2	Madison, Wis.
Cooper, A. Hugh	V. A.	SS-	1-2	Gay
Copeland, Fred M.	A. E., Special		1-2	Alex
Coppadge, Raney	C. and M., Fr.		2	Stillwater
Coppock, John M.	V. A.		2	Idabel
Correll, Ellen	H. E., Jr.		1-2	Stillwater
Correll, Esther M.	H. E., Soph.		1-2	Stillwater
Coryell, Irvin C.	C. and M., Fr.		1-2	Chickasha
Couch, Earl	C. and M., Fr.		1-2	Stillwater
Coulter, Angie E.	H. E., Fr.		1	Roosevelt
Courtney, Mahlon C.	E. Engr., Sr.		1-2	Edmond
Courtright, Claiborne	V. A.		1-2	Perkins
Cover, Harry	V. A.		1-2	Mu hall
Cowan, Hazel	Educ., Jr.		1	Stillwater
Cowen, Neva Mae	H. E., Fr.		1-2	Salt Fork
Cowin, Marion F.	Special		-2	Cleveland, Ohio
Cox, Rufus F.	Agri., Soph.		1-2	Clinton
Coyner, H. Raymond	V. A.		1-2	Edmond
Crabb, J. L.	Engr., Fr.		1-2	Shawnee
Crabtree, C. L.	Agri., Fr.	SS-	1-2	Stillwater
Crabtree, E. C.	C. and M., Soph.		1-2	Stonewall
Craft, Martin W.	Trades		-2	Stillwater
Craft, Paul V.	C. and M., Spec.		1-2	Gate
Craig, Fred	Agri. Fr.		1	Ft. Towson
Craven, Edwin M.	Bus.		1-2	Stillwater
Crawford, Frank	Special		1-2	Pecan Gap, Texas
Crawford, J. C.	Engr., Fr.		1-2	Ladonia, Texas
Crawford, Kyle G.	Bus.	SS-	1-2	Mt. Selman, Texas
Crays, Mrs. T. A.	Special. Edu.	SS-	-2	Stillwater
Crosnoe, S. M.	V. A.	SS-	1-2	Hollis
Cross, Thelma	Secondary	SS-	1-2	Stillwater
Crutchfield, Edgar	C. and M., Fr.		1-2	Stillwater
Crutchfield, W. W.	S. and L., Special		-2	Stillwater
Cruz, Antonio	Educ., Special	SS-	1-2	Agana, Guam
Cummins, Wilma	Secondary		1-2	Glencoe
Cunningham, Ed. C.	C. and M., Fr.		1-2	Quay
Curnutt, Vida	H. E., Fr.		1-2	Broken Arrow
Curnutt, Vivian	H. E., Jr.		1-2	Broken Arrow
Currie, Harry E.	Agri., Soph.		-2	Shawnee
Cunyus, Paul	C. and M., Jr.		1-2	Waco, Texas
Dailey, Truman V.	C. and M., Fr.	SS-	1-2	Red Rock
Dalby, Raymond	Secondary		1	Savanna
Dale, Dean	Engr., Soph.		1-2	Stillwater
Dale, Thomas	Agri., Soph.		-2	Stillwater
Danford, Claude P.	Trades		1	Billings
Daniels, Edw. W.	V. A.		1	Stillwater
Daniels, Harold	C. and M., Soph.		1-2	Stillwater
Darrow, Frank R.	V. A.		1-2	Mustang
Davies, Ed. E.	Agri., Fr.		1	Yale
Davies, Leota, Mrs.	Voc. H. E.		1	Yale
Davis, Allen S., Jr.	Music, Special		1-2	Stillwater
Davis, A. H.	Agri., Jr.		1-2	Enid

Davis, Clarence	Trades	1-2	Stillwater
Davis, Claude F.	Sci. and Lit., Soph.	1-2	Medford
Davis, Con C.	S. and L., Fr.	SS-1-2	Spur, Texas
Davis, Emma	Voc. H. E.	1-2	Stillwater
Davis, Joseph M.	V. A.	1-2	Tecumseh
Davis, Paul R.	S. and L., Soph.	1-2	Stillwater
Davis, Perry E.	Secondary	1-2	Stillwater
Davis, Sterling	Secondary	1-2	Spur, Texas
Day, Fanny B.	Educ., Soph.	SS-1-2	Stillwater
Day, James W.	Education	SS -2	Stillwater
Dean, Cecil K.	C. and M., Soph.	1	Carney
Dean, Cliff L.	C. and M., Soph.	1-2	Ryan
Dean, Daisy L.	H. E., Fr.	SS-1-2	Carney
Dean, Hal E.	Secondary	1	Mena, Ark.
DeBois, Virginia	Music, Jr.	1-2	Stillwater
Decker, Ernest J.	Trades	SS-1-2	Maramec
DeCramer, Vivian	H. E., Fr.	1-2	Stillwater
Deem, Isabella	Educ., Fr.	-2	Purcell
Deer, James O.	V. A.	1-2	Carney
Degruchy, Ida	S. and L., Fr.	1-2	Kiowa
Degruchy, James	S. V. A.	SS-1-2	Kiowa
Delay, Perry E.	Engr., Fr.	1-2	Wakita
Dezell, William A.	C. and M., Special	-2	Pond Creek
DeMoss, Grace	Voc. H. E.	1-2	Stillwater
Denman, Isola	H. E., Fr.	SS-1-2	Stillwater
Denman, Roger S.	Agri., Soph.	-2	Stillwater
Denman, Mrs. Roger S.	Secondary	-2	Stillwater
Dennis, Ethel	Educ., Fr.	SS-1-2	Glencoe
Dennis, Georgie	Bus.	1-2	Stillwater
Denton, Faye	C. and M., Fr.	1-2	Blackwell
Deickerson, Lewis L.	Engr., Jr.	1-2	Atoka
Diehr, Eugene	Engr., Fr.	1-2	Oklahoma
Dilbeck, Adrian	Engr., Fr.	1-2	Wetumka
Dillon, Herbert G.	Engr., Soph.	1-2	Woodward
Divine, Finnis Lois	V. A.	1-2	Perry
Divine, W. Johnnie	C. and M., Jr.	1-2	Perry
Dixon, Herbert L.	C. and M., Fr.	1-2	Wewoka
Dixon, Ralph	V. A.	-2	Bliss
Dolphin, P. M.	C. and M., Sr.	1-2	Calumet
Donart, Hazel	Music, Special	1-2	Stillwater
Donnell, Leonard	Engr., Special	1-2	Luther
Donovan, Dennis E.	A. Engr., Jr.	-2	Kremlin
Donnelly, Ray	Trades	1	Vinita
Doolin, Bernice	Music, Special	1-2	Oilton
Downey, Helen	H. E., Jr.	SS-1-2	Stillwater
Downey, William	C. and M., Fr.	1-2	Stillwater
Drake, Aulbin	Trades	-2	Glencoe
Driskill, J. Bryan	Agri., Fr.	1-2	Chickasha
Dryden, Oran	Trades	1-2	Stillwater
DuBois, Robert	Music, Special	-2	Stillwater
Dryke, Tom K.	Bus.	-2	Cleburne, Texas
Ducker, R. W.	Engr., Fr.	1-2	Tecumseh
Dunavan, Ralph	C. and M., Jr.	1-2	Enid
Duncan, Florence	Secondary	SS-1-2	Glencoe
Dye, Ruby	Bus.	1-2	Stillwater
Dynes, Evelyn R.	H. E., Fr.	-2	Purcell
Easterday, Hazel	H. E., Fr.	1-2	Blackwell
Eaton, Donald R.	C. and M., Fr.	1-2	Muskogee
Eaton, Howard	V. A.	1-2	Skedee
Eaton, Richie	Secondary	1-2	Shreveport, La.
Echols, Jessie	H. E., Jr.	SS-1	Mangum
Edmonson, Myrle	H. E., Soph.	1-2	Chandler
Edwards, Bernice	C. and M., Fr.	1-2	Oklahoma
Edwards, Carmelita	Secondary	1	Stillwater
Edwards, Eugenia	Educ., Fr.	1-2	Stillwater
Edwards, Mary	H. E., Jr.	1-2	Medford
Egelston, John	Secondary	1	Guthrie
Elbertson, Delana	H. E., Soph.	SS-1-2	Hodgens
Elledge, L. E.	Trades	SS-1-2	Stillwater
Ellington, Elmo	C. and M., Fr.	1-2	Wagoner
Ellis, Ben F.	C. and M., Fr.	1-2	Soper
Ellis, Reuben W.	C. and M., Fr.	1-2	Abilene, Texas
Elthorp, Roy	Agri., Fr.	1	Meeker
Emert, Mary	Secondary	SS-1-2	Stillwater
Emmons, W. H.	Engr., Fr.	1-2	Vinita
Enlow, Margaret	Educ., Soph.	1-2	Stillwater
Enlow, R. M.	C. and M., Soph.	1-2	Mooreland
Enlow, Russell	C. and M., Special	-2	Woodward

Enlow, Ruth	S. and L., Soph.	1-2	Stillwater
Ensworth, H. R.	Music, Special	1-2	Ardmore
Eppler, Walter G.	C. and M., Fr.	1-2	Stillwater
Ethridge, Louis	C. and M., Fr.	1-2	Cold Springs
Evanhoe, Bernard	Secondary	1-2	Ralston
Evans, Lee	Secondary	1-2	Locust Grove
Ewing, Hershell	C. and M., Fr.	1-2	Madill
Ewing, Waldo Finis	Secondary	1	Muskogee
Farnsworth, Carl J.	Educ., Special	-2	Stillwater
Farnsworth, Lester	Secondary	1-2	Tryon
Farnsworth, Lottie	C. and M., Soph.	1-2	Tryon
Farrington, Olin M.	Agri., Jr.	1-2	Carmen
Farrington, Paul L.	Engr., Fr.	1	Carmen
Faucher, Oliver J.	C. and M., Fr.	1	Elk City
Fears, Irene	S. and L., Soph.	1-2	Okemah
Feather, Raymond O.	Engr., Fr.	1-2	Walters
Fellows, Leland	Engr., Fr.	1-2	Stillwater
Fergerson, R. F.	Arch., Special	1-2	Carnegie
Fields, J. Burford	C. and M., Fr.	1-2	Stillwater
Files, Kilby	Secondary	1-2	**Albion**
Finley, Bennett	V. A.	1-2	Antlers
Finney, W. D.	Agri., Soph.	1-2	Ft. Cobb
Finney, W. F.	C. and M., Fr.	1-2	Ft. Cobb
Fish, Alvin	Agri., Spec.	-2	Ft. Worth, Texas
Fisher, Golda	H. E., Fr.	1-2	Stillwater
Fisher, Irene	C. and M., Fr.	SS-1-2	Stillwater
Fite, Orlo	Trades	1-2	Apache
Fitzgerald, Milton	Engr., Fr.	1-2	Iowa Park, Texas
Flanary, T. J.	Secondary	1	Stillwater
Florence, David Wm.	C. and M., Jr.	1-2	Houston, Texas
Floyd, Mary	Educ., Special	1-2	Bentonville, Ark.
Flopd, Rossie	Agri., Jr.	1-2	Vandalio, Ohio
Foliart, Jess	Agri., Fr.	2	Enid
Folk, Charles	Engr., Soph.	1-2	Yukon
Folk, Joe W.	E. Engr., Sr.	1-2	Yukon
Forbes, Stanley	Engr., Special	1-2	Stillwater
Ford, R. B.	Engr., Fr.	SS-1	Monroe
Forrester, William B.	Agri., Sr.	1-2	Stuart
Forston, Ivan	C. and M., Fr.	1-2	Shawnee
Foster, Anna M.	Educ., Fr.	1-2	Stillwater
Foster, David Harry	C. E., Soph.	1-2	Stillwater
Foster, David Fred	C. and M., Fr.	1	Kingfisher
Foster, Don C.	Agri., Soph.	1-2	Kingfisher
Foster, Ivan L.	C. and M., Fr.	1-2	Stillwater
Foster, Mabel	H. E., Soph.	SS-1-2	El Reno
Foster, Thompson C.	Bus.	SS-1-2	Perry
Fountain, Alice	Agri., Fr.	1-2	Tulsa
Fountain, Hugh	S. V. A.	1-2	Collinsville, Texas
Fox, Kenneth L.	Secondary	1-2	Ardmore
Fox, Otis O.	S. and L., Fr.	1-2	Fresno, Cal.
Fraley, Bennie Mae	Music, Fr.	1-2	Ardmore
Francis, G. A.	S. and L., Soph.	-2	Muskogee
Franklin, Marion E.	Educ., Sr.	SS-1-2	Stillwater
Frazier, O. F.	C. and M., Fr.	1-2	Stillwater
Fredkind, Hulda	Secondary	SS-1-2	Perry
Freeling, John L.	Engr., Fr.	1-2	Sapulpa
Freeman, Zanoni B.	S. and L., Sr.	SS-1-2	Enid
French, Logan	Bus.	-2	Willow
Fricke, Albert	Secondary	1-2	Oklahoma
Friedemann, Adolf	M. E., Soph.	1-2	Stillwater
Frost, Mark	C. E., Soph.	1-2	Stillwater
Frost, Ruben	Agri., Sr.	SS-1-2	Stillwater
Fry, Floyd V.	Agri., Fr.	-2	Thomas
Fry, Ralph Beakley	Agri., Sr.	SS-1-2	Stillwater
Fulbright, Clothide	H. E., Fr.	1-2	Elgin
Gaddis, Preston	Engr., Fr.	1-2	Bartlesville
Gaddy, Sue	Educ., Fr.	1	Broken Arrow
Garlock, Bertha	H. E., Jr.	SS-1-2	Richmond
Garringer, Clara	H. E., Sr.	1-2	Medford
Garringer, Mabel	Secondary	1-2	Medford
Gassaway, Frank	C. and M., Fr.	1-2	Stillwater
Gaunt, Linonel	C. and M., Fr.	-2	Cushing
Gayle, Anna Groner	H. E., Special	-2	Stillwater
Gearhart, Geo. W.	Business	SS-1	Perkins
Gearhart, H. Barton	E. E., Fr.	1-2	Hobart
Gelder, Geo. B.	E. E., Fr.	1-2	Yale
Georgie, Carrie	Secondary	SS-1-2	Ripley

Gibson, Don. W.	Agri., Fr.	-2	Blair
Giger, Marion	V. A.	SS-1-2	Rush Springs
Gilbert, Bina Mae	S. and L., Fr.	SS-1-2	Stillwater
Gillispie, Samuel E.	Bus.	SS-1-2	Hooker
Gillum, J. L.	S. and L., Sr.	1-2	Minco
Gilmer, Guy H.	Trades	1	Stillwater
Gilstrap, Lee F.	C. and M., Fr.	1-2	Chandler
Glazner, Lucille	H. E., Soph.	1	Eufaula
Glisan, Milton J.	V. A.	1-2	Higgins, Texas
Glynn, Raymond	V. A.	1-2	Enid
Goley, Agnes M.	C. and M., Fr.	1-2	Perry
Goll, Maxie F.	Dairy, Special	1-2	Muskogee
Gooch, Everett	C. E., Soph.	1-2	Agra
Goode, John William	M. E., Fr.	1	Brinkman
Goodholm, E. Harold	C. and M., Soph.	1-2	Stillwater
Goodholm, Ruth	Special	1-2	Stillwater
Goodpasture, Glen L.	V. A.	1	Hennessey
Goodwin, L. Bill	S. V. A.	SS-1-2	Heavener
Goodwin, Mrs. R. Q.	Educ., Jr.	SS-1-2	Stillwater
Goodwin, R. Q.	Educ., Sr.	SS-1-2	Stillwater
Goranflo, Daniel Everett	Agri., Spec.	1-2	Quinlan
Goranflo, Wilbur E.	Agri., Soph.	1-2	Quinlan
Gould, Brenda	H. E., Jr.	1-2	Stillwater
Gould, Chester	C. and M., Fr.	1-2	Stillwater
Gould, King E.	E. E., Special	1-2	Stillwater
Gourley, Lawrence	C. and M., Fr.	1-2	Grandfield
Grady, Walter A.	C. and M., Fr.	1-2	Stillwater
Graham, Florence	H. E., Fr.	1-2	Nowata
Graham, Herbert A.	Agri., Sr.	SS-1-2	Abbott, Ark.
Graves, Estelle	H. E., Fr.	SS-1-2	Stillwater
Graves, Eugene	Secondary	1	Stillwater
Green, George H. C.	C. and M., Jr.	1-2	Bethel
Green, Harold	C. and M., Sr.	1-2	Chandler
Green, Jess L.	C. and M., Jr.	1-2	Lone Wolf
Green, Willie	V. A.	-2	Hastings
Greenshields, John	V. A.	1	Uncas
Greenshields, Pauline	H. E., Special	1	Uncas
Gregory, Vernon	C. and M., Fr.	1-2	Stillwater
Greiner, Agnes	H. E., Jr.	1-2	Stillwater
Griffin, Luther M.	Agri., Fr.	1-2	Hale Center, Texas
Griffith, W. B.	C. and M., Fr.	1-2	Carnegie
Griggs, Beula	Secondary	1	Chandler
Grimes, Lucille	S. and L., Sr.	1-2	Walters
Grimsley, J. T.	Engr., Soph.	1-2	Pawnee
Groner, Marion Stuart	Music, Special	1-2	Norfolk, Va.
Graves, Cliftenn	C. and M., Fr.	-2	Wetumka
Grow, Ena	H. E., Jr.	SS-1-2	Clinton
Grow, H. Russell	C. and M., Soph.	1-2	Loup City, Neb.
Grunden, Floyd	V. A.	SS-1-2	Senica
Guthrie, Bernice	Music, Special	1-2	Perry
Guthrie, Mike	V. A.	SS-1-2	Kaufman, Texas
Haag, Eugene R.	V. A.	1-2	Stillwater
Haak, Karl W.	V. A.	-2	Texarkana, Ark.
Hafner, V. L. O.	Agri.	SS-1-2	Stillwater
Hale, Josephine	C. and M., Soph.	1-2	Pryor
Haley, Katherine	C. and M., Fr.	1	Oklahoma
Haley, Russell	C. and M., Fr.	1	Ponca City
Hall, Beatrice	H. E., Special	1-2	Mangum
Hall, Geo. W.	M. E., Soph.	1-2	Mangum
Hall, Frank Van	Trades	1	Frederick
Hall, Robert Gates	V. A.	1	Stillwater
Ham, John	C. and M., Sr.	SS-1-2	Stillwater
Hamilton, Max	C. and M., Fr.	1	Pond Creek
Hammond, Frank	Engr., Fr.	1-2	Kremlin
Hammond, Willah	Secondary	1	Medford
Hampton, L. B.	C. and M., Fr.	1-2	Prague
Hampton, Leo	Secondary	1-2	Blackburn
Hampton, eParl	H. E., Sr.	SS-1-2	Blocker
Hand, Dent	C. and M., Jr.	1-2	Salt Fork
Haney, Billie	E. E., Fr.	1-2	Sulphur
Hankins, Blake	Agri., Fr.	1-2	Tulia, Texas
Harness, Robert E.	V. A.	-2	Miami
Hardin, W. T.	V. A.	SS-1-2	Cordell
Hargis, Vester	Trades	1	Grandfield
Harper, Paul L.	Trades	1-2	Oakwood
Harper, Ray E.	Agri., Jr.	2-	Oklahoma
Harrell, Ada	H. E., Fr.	1-2	Calvin
Harrelson, Horace F.	Trades	SS-1-2	Clinton

Harris, Cecile	Secondary	1-2	Cushing
Harris, Edward	Secondary	1-2	Howe
Harris, Paul W.	A., Fr.	1-2	Chickasha
Harris, Wm. M.	Agri., Spec.	SS-1-2	Tishomingo
Harrison, A. J.	Engr., Spec.	-2	Indiahoma
Harrison, Lou B.	C. and M., Soph.	1-2	Oklahoma
Hart, Ruby Lee	C. and M., Soph.	1	Minnehah
Harvey, Arthur	C. and M., Fr.	1-2	Stillwater
Harvey, Ruth	Music, Special	1	Stillwater
Harwell, Fred C.	Bus.	SS-1-2	Webber Falls
Hasbrook, Nathan	Agri., Fr.	1-2	Marshall
Hassler, F. R.	C. E., Fr.	1-2	Stillwater
Hastings, Annie Lenora	H. E., Jr.	1-2	Perkins
Hastings, Bertha Lois	Secondary	1-2	Perkins
Hatcher, Edward	Secondary	1-2	
Hatcher, Robert N.	Voc. Agri.	1-2	Ada
Hatchett, Harold James	Agri., Spec.	-2	Foss
Hatfield, Ernest	C. and M., Fr.	1	Stillwater
Haughey, Mrs. C. C.	Secondary	SS-1-2	Stillwater
Haughey, Claude C.	Agri., Special	SS-1-2	Crescent
Hawes, V. B.	C. and M., Soph.	1-2	Shawnee
Hawker, Wayne	Engr., Fr.	1-2	Tulsa
Haworth, Arthur	M. E., Fr.	1	Okeene
Hawthorne, Ray	Secondary	1-2	Holdenville
Hayes, T. E.	Graduate	SS-1-2	Stillwater
Hayman, Hattie	Educ., Jr.	1-2	Enid
Headlee, Paul	C. and M., Fr.	1	Fairview
Heck, Helen	H. E., Jr.	1-2	Helena
Heinz, Lewis L.	Engr., Spec.	SS-1-2	Rosston
Helema, Mabel	H. E., Sr.	1-2	Enid
Hemphill, John A.	Agri., Fr.	1	Richmond, Ark.
Henderson, Charlcie	Bus.	1-2	Stillwater
Henderson, Charlie	Secondary	1-2	Stillwater
Henderson, DeWitt	C. and M., Fr.	1-2	Stillwater
Henderson, Edith	H. E., Fr.	1-2	Independence, Kansas
Henderson, Finis E.	V. M., Fr.	1-2	Portales, N. M.
Henderson, Cliff	Engr., Fr.	1-2	Garber
Henderson, Leonard	C. and M., Fr.	1-2	Lamont
Hendrickson, Asher	M. E., Jr.	1-2	Boynton
Hendrickson, Hugh	Engr., Fr.	-2	Boynton
Hendrickson, Margaret J.	H. E., Sr.	1-2	Boynton
Hendrix, Rex B.	C. and M., Sr.	1-2	Norman
Henry, Chas. R.	V. A.	SS-1-2	Checotah
Henson, Esther	Voc. H. E.	1-2	McLoud
Henson, H. H.	Agri., Fr.	1-2	McLoud
Henson, Margaret	Educ., Fr.	1-2	Shawnee
Henson, Paul	Secondary	1-2	McLoud
Henson, Ralph	Secondary	1-2	McLoud
Hess, Nona	Educ., Soph.	1-2	Guthrie
Hester, Bert	Trades	SS-1	Stillwater
Hesser, Isaac T.	C. and M., Spec.	-2	Stillwater
Hetherington, C.	E. E., Spec.	SS-1-2	Stillwater
Hetsch, Katherine	H. E., Fr.	1-2	Guthrie
Hensel, Anola	H. E., Fr.	1-2	Stillwater
Hibbard, Purl	V. A.	SS-1-2	St. Paul, Ark.
Hickman, H. Glenn	V. A.	1	Hennessey
Hickman, Lyman T.	V. A.	1-2	Hennessey
Hicks, Beatrice	H. E., Sr.	1-2	Chandler
Hildebrand, Richard	C. and M., Jr.	1-2	Ft. Sam Houston, Texas
Hill, Ernest Houston	C. and M., Fr.	-2	Chickasha
Hill, Erskine	C. and M., Spec.	SS-1-2	Stillwater
Hillbrant, Curtis K.	C. E., Jr.	1	Lamont
Hilton, C. B.	V. A.	SS-1-2	Stillwater
Hilton, Mrs. Chas. B.	H. E., Special	-2	Stillwater
Hiner, B. J.	V A.	2	Polytechnic, Texas
Hinson, Edna	H. E., Fr.	1-2	Eldorado
Hinson, Marcus W.	E. E., Soph.	1-2	Eldorado
Hitt, Jack H.	M. E., Fr.	1-2	Yale
Hobbs, Earl	C. E., Fr.	1-2	Doyle
Hobbs, Gladys	S. and L., Sr.	1-2	Doyle
Hobein, Ray B.	Special	SS-1-2	El Paso, Texas
Hodges, Geo. C.	Engr., Special	1	Medford
Hoffsommer, Harley	Agr., Fr.	1-2	Hillsdale
Hoffsommer, Helen	H. E., Fr.	1-2	Hillsdale
Hogan, Ruth	Educ., Special	1	Pryor
Hoge, Marlin S.	Agr., Special	1-2	Heavener
Hoke, James	C. and M., Fr.	1-2	Stillwater
Holford, Dallas	Agri., Fr.	1-2	Madill

Holliday, Gladys	Educ., Fr.	1-2	Crescent
Hollis, Homer	M. E., Special	SS-1-2	Stillwater
Hollis, Jesse Dye	H. E., Sr.	SS-1-2	Stillwater
Hollingshead, Estell C.	E. E., Jr.	1-2	Lawton
Holman, Oscar H.	C. and M., Fr.	1-2	Minco
Holmes, Carl	C. and M., Soph.	1-2	Stillwater
Holmes, E. Neta	Music, Soph.	1-2	Stillwater
Holmes, Raymond	C. and M., Fr.	1-2	Manford
Holt, Gertrude	S. and L., Fr.	SS-1-2	Stillwater
Holt, Mabel	S. and L., Sr.	SS-1-2	Stillwater
Holt, William W.	S. and L., Fr.	1	Stillwater
Holter, Ethel	S. and L., Soph.	1-2	Okeene
Holter, Helen	H. E., Fr.	SS-1-2	Okeene
Holton, A. F.	Special Dairy	1	Elk City
Hopkins, Dorothy	C. and M., Fr.	1-2	Guthrie
Hopkins, Margaret E.	H. E., Jr.	SS-1	Hollis
Hopkins, Omar	E. E., Soph.	1-2	Crescent
Hopkins, M. L.	V. A.	-2	Marianna, Ark.
Houck, David	Engr., Special	1	Stillwater
Houck, John F.	C. and M., Soph.	1-2	Stillwater
Housh, Margaret	H. E., Fr.	1-2	Blackwell
Houston, Oscar D.	S. V. A.	SS-1-2	Woodward
Howery, Geo. W.	S. V. A.	SS-1-2	Yarnaby
Howland, Clarence	C. and M., Fr.	1-2	Pleasant Valley
Holand, Elma	Secondary	1-2	Pleasant Valley
Hoyt, Donald	C. and M., Fr.	1-2	Chandler
Hubbard, Melvin	Trades	SS-1	Stillwater
Huckstep, James T.	Engr., Fr.	1-2	Stillwater
Hudiburg, Caziville	S. and L., Fr.	1-2	Stillwater
Hudiburg, Gladys	H. E., Fr.	1-2	Stillwater
Hudson, Basil	Special	-2	Clarita
Hudson, Smyth B.	Secondary	-2	Clarita
Hudson, Summers	Agri., Soph.	1	Willow
Hughes, Reola	Secondary	1-2	Ames
Hughes, Richard A.	C. and M., Fr.	1-2	Woodward
Hughes, Will	C. and M., Fr.	1-2	Ames
Hughett, M. L.	E. E., Fr.	1-2	Stillwater
Hukill, Pinnie	Voc. H. E.	SS-1	Yale
Hull, E. R.	M. E., Soph.	1-2	Cleveland
Hulse, Lant	S. V. A.	1-2	Hollis
Hulse, Ollie	Agri., Jr.	SS-1-2	Hollis
Humble, Forrest E.	Secondary	1-2	Stillwater
Hunt, Edwin S.	Secondary	1	Alex
Hunter, Robert	S. V. A.	1	Woodward
Hurford, John R.	M. E., Soph.	1-2	Shawnee
Hurst, Mrs. Clarabell	H. E., Special	1-2	Oklahoma
Hurst, Dick	C. and M., Jr.	1-2	Oklahoma
Hutchinson, Bessie Ellen	Educ., Jr.	SS-1-2	Stillwater
Hyde, Helen	Educ., Fr.	-2	Meridian
Ikard, Catherine	H. E., Fr.	1-2	Chickasha
Ikard, John A.	C. and M., Soph.	1-2	Chickasha
Ingram, Clyde	Agri., Soph.	1-2	Hollis
Ingram, Orval E.	Agri., Special	1-2	Perkins
Isenberg, Gilbert	Agri., Jr.	1-2	Stillwater
Ives, Herbert D.	S. and L., Jr.	1- 2	Stroud
Ives, J. M.	Agri., Jr.	1-2	Shawnee
Ives, Morrison Lucille	S. and L., Fr.	1-2	Wetumka
Ivy, Eugene	V. A.	1	Stillwater
Jacaria, Hadji	Secondary	1-2	Jolo Sulu, P. I.
Jackson, Troy A.	C. and M., Soph.	1-2	Holdenville
Jacob, A. R.	Agri., Fr.	1-2	Stillwater
Jacobs, Bula	H. E., Sr.	SS-1-2	Mangum
James, Glen R.	C. E., Fr.	1-2	Mangum
Jansen, Richard E.	Engr., Fr.	1	Thomas
Jeffries, Mary Ellen	Secondary	1	Pawnee
Jehlicka, Bohumil	Secondary	1-2	Stillwater
Jehlicka, Ludwik	E. E., Soph.	1-2	Stillwater
Jenkins, Henry B.	S. and L., Jr.	1-2	Perkins
Jerman, Ernest P.	Business	-2	Ames
Jester, Clarence	C. and M., Fr.	1-2	Snyder
Jester, Dave	V. A.	-2	Oklahoma
Jester, Louise	Educ., Jr.	SS-1-2	Stillwater
Johnson, Blanche	Secondary	1-2	Lovell
Johnson, Mrs. E. B.	H. E., Spec.	1-2	Stillwater
Johnson, F. J.	S. L., Soph.	1-2	Pawnee
Johnson, R. George	Trades	1-2	Stillwater
Johnson, Henry W.	Trades	1-2	Stillwater

Johnson, H. F.	V. A.	SS-1	Buffalo
Johnson, Janie Mae	H. E., Sr.	1-2	Pawnee
Johnson, Opal	H. E., Soph.	1-2	Chandler
Johnston, Wm. Lane	C. and M., Spec.	1-2	Claremore
Johnson, T. R.	Agri., Fr.	1-2	Cushing
Jones, Clark N.	Engr., Fr.	1-2	Duncan
Jones, Emily	C. and M., Fr.	1	Stillwater
Jones, Hazel	Music, Special	1	Stillwater
Jones, James C.	Arch.	SS-1-2	Coffeyville, Kans.
Jones, Nettie	H. E. Fr.	1-2	Stillwater
Jones, R. Onnie	Voc. Agri.	1-2	Stillwater
Jones, Ray	C. and M., Jr.	1	Stillwater
Jones, Ruth	S. and L., Soph.	1	Stillwater
Jones, Stella	H. E., Jr.	1-2	Hobart
Jones, Vera	Music. Fr.	1-2	Stillwater
Judeman, Harold H.	Trades	1-2	Edna
Kaiser, Elmer C.	Engr., Fr.	1	Dacoma
Kanatzer, Florence	H. E., Fr.	1	Shawnee
Kapp, Harry D.	M. E., Fr.	1	Oklahoma
Karban, Anna	Voc. H. E.	SS-1-2	Fairmont
Keegan, Claire	C. and M., Fr.	1-2	Chandler
Keely, Arline	H. E., Soph.	1-2	Arcadia
Keen, C.	Engr., Spec.	1-2	Weatherford
Keepers, Francis	Engr., Fr.	1-2	Ripley
Keeth, Jesse R.	Engr., Fr.	1-2	Duncan
Keith, Soldier M.	V. A.	SS-1	S il well
Keiffer, Beulah	H. E., Soph.	1-2	Helena
Keller, Eva	Secondary	1	Skedee
Kelly, Cecil	Dairy, Special	1	Tulsa
Kelly, Bryon L. L.	C. and M., Fr.	SS -2	Stillwater
Kelly, Mrs. J. S.	S. and L., Fr.	-2	Stillwater
Kelsey, Joseph E.	Engr., Special	1-2	Wilburton
Kent, Glenda	Educ., Fr.	1	Morrison
Kern, Barnet	H. E., Fr.	1	Drumright
Kerr, Verlinda	H. E., Voc.	1-2	Glencoe
Kesler, Viola	C. and M., Bus.	1	Grandfield
Ketch, Warren V.	Secondary	1-2	Stillwater
Keys, Chester William	C. and M., Soph.	1-2	Stillwater
Keys, Leona	Bus.	1-2	Boulder, Colo.
Kezer, Irene	S. and L., Soph.	1-2	Stillwater
Kibler, Mrs. J. B.	Bus.	-2	Stillwater
Kidd, R. L.	M. E., Soph.	1-2	Bristow
Kilpatrick, Lester	Agri., Fr.	1	Hunter
Kilpatrick, Pearl	H. E., Fr.	SS-1-2	Hunter
King, Ruby	H. E., Fr.	1-2	Stillwater
King, Leon	Sec.	-2	Stillwater
Kingsley, Volney F.	C. and M., Fr.	SS-1-2	Canton
Kinkead, Clark	Agri., Fr.	1-2	Nowata
Kinney, Fern	Educ., Fr.	1-2	Yale
Kinney, Roy L.	S. V. A.	-2	Lorena
Kinsley, Anna M.	H. E., Special	SS- -2	Okeene
Kirk, James H.	V. A.	SS-1-2	Guyman
Kirk, James B.	Trades	1	Duncan
Kirkland, Ira H.	Arch., Soph.	1-2	Muskogee
Kirkpatrick, James E.	Agri., Soph.	1-2	Oklahoma
Kirkpatrick, Tom	Agri., Jr.	1-2	Lewisville, Texas
Kirkpatrick, Will	Agri., Soph.	1-2	Lewisville, Texas
Kite, Chas.	Agri., Spec.	SS-1-2	Sobol
Klepper, Wayne	C. and M., Fr.	1	Shawnee
Klike, Helen	S. and L., Fr.	1-2	Guthrie
Knight, Ivan T.	E. E., Fr.	SS-1-2	Stillwater
Knight, Karl L.	Bus.	1-2	Stillwater
Knight, Joe M.	C. and M., Fr.	1-2	Stillwater
Knight, Roy C.	C. and M., Soph.	1-2	Stillwater
Knox, Stella	Educ., Fr.	1-2	Perry
Koechel, Edwin	Trades	1-2	Carrier
Kornegay, C. S.	Agri., Spec.	1-2	Vinita
Kraemer, Florence	Music, Sr.	1-2	Perry
Kramer, Genna Marie	Educ., Sr.	SS-1-2	Meramec
Kramer, Teddy	Engr., Fr.	-2	Meramec
Kroutil, Edward	C. and M., Spec.	1-2	Prague
Kucera, Albina	Voc. H. E.	1-2	Shawnee
Kugel, Cole	C. and M., Fr.	1-2	Salt Fork
Kugel, Glen	C. and M., Soph.	1-2	Salt Fork
Kugel, Harry	C. and M., Soph.	1-2	Salt Fork
Kunsemuller, Carl H.	Educ., Spec.	-2	Norman
Lake, E. R.	C. E., Fr.	1-2	Stillwater

Lake, Orborn	Trades	1-2	Stillwater
Lancaster, Grady	C. and M., Spec.	1-2	Yale
Lance, Donald	Secondary	1	McAlester
Lane, J. Roy	C. and M., Soph.	1-2	Shawnee
Lanphere, Wm. B.	Agri., Soph.	1-2	Deer Creek
Latcher, David	C. and M., Soph.	1-2	Deer Creek
Latimer, Eula	H. E., Fr.	1-2	Pawnee
Latimer, Vera	Gen. Lit., Soph.	1-2	Pawnee
Lauderdale, Gladys	Secondary	1-2	Avery
Lauderdale, Glen	Secondary	SS-1-2	Stillwater
Lauderdale, Grace	Secondary	SS-1	Stillwater
Laurent, J. Henry	V. A.	1-2	Tipton
Laverty, Helen	C. and M., Jr.	1-2	Denver, Colo.
Lawhorn, Mary	Bus.	SS-1-2	Stillwater
Lawler, John R.	V. A.	SS-1-2	Holly Creek
Lawrence, Edgar R.	Agri. Special	SS-1-2	Stillwater
Lawrence, Mary	H. E., Special	1-2	Stillwater
Leachman, Claude E.	C. and M., Fr.	1-2	Woodward
Leard, Wheeler R.	C. and M., Soph.	1-2	Hugo
Lee, Robert E.	Bus.	1	White Deer, Texas
LeMay, George W.	V. A.	SS-1	Eldon
Lemmon, Haven D.	Agri., Soph.	1-2	Minco
Lemmon, R. E.	C. and M., Fr.	1-2	Minco
Lewis, Madge	C. and M., Fr.	1-2	Chandler
Liebhart, Marion C.	C. and M., Sr.	1-2	Drummond
Lile, Vernon Ivo	S. V. A.	-2	Stillwater
Lile, Willie Everett	V. A.	-2	Stillwater
Linch, Louis	C. and M., Fr.	1-2	Ponca City
Lonergan, John L.	Agri., Soph.	1-2	Pawnee
Long, Lucius W.	C. and M., Special	1-2	Rush Springs
Long, Wm. H.	Engr., Soph.	1-2	Wakita
Lookabaugh, Guy H.	C. and M., Soph.	1-2	Watonga
Lookabaugh, Lyda	S. and L., Soph.	1-2	Stillwater
Loomis, Bernice I.	Music, Fr.	1-2	El Reno
Looney, Texas	Engr. Fr.	1-2	Chickasha
Loosen, Isabell	H. E., Soph.	1-2	Okarche
Loosen, M. H.	Secondary	1-2	Okarche
Loosen, Vilette	Secondary	1-2	Okarche
Lottridge, Buryl	C. and M., Fr.	1-2	Enid
Lovell, Phelps	Dairy, Special	1	Columbia
Lowe, Fred D.	C. and M., Soph.	1-2	Greenfield
Lowrance, C. O.	C. and M., Soph.	SS-1-2	Sulphur
Lowry, Bernice Marie	H. E., Fr.	1-2	Ponca City
Lowrey, Chester L.	C. E., Fr.	1-2	Elk City
Lucus, Donovan	S. and L., Fr.	1-2	Skiatook
Ludwick, Russell W.	Agri., Jr.	SS-1-2	Keefeton
Luke, Francis	H. E., Soph.	1-2	Ardmore
Luman, Hezekiah	V. A.	1-2	Drick
Lundberg, Ralph C.	Trades	1-2	Stillwater
Lynds, Clarence W.	Engr., Fr.	1	Nash
Luper, Arch B.	Trades	SS-1-2	Centrohoma
Lyne, George P.	Agri., Special	SS-1-2	Tishomingo
Madambe, George	Secondary, Special	SS-1-2	Guezon, P. I
Maddan, Llewellyn	V. A.	SS-1-2	Curtis
Mahaffey, Katie Lee	H. E., Jr.	1	Stillwater
Mahoney, George T.	V. A.	1-2	Walters
Main, Francis E.	C. E., Soph.	1-2	Stillwater
Main, Lois	Secondary	SS-1-2	Stillwater
Malone, H. L.	E. E., Soph.	1-2	Oklahoma
Mandeville, John A.	V. A.	1-2	Sand Springs
Maness, Velma	Secondary	SS-1	Stillwater
Maness, Verne L.	C. and M., Fr.	1-2	Stillwater
Manning, William	Secondary	SS-1	Spur, Texas
Markland, James D.	C. and M., Soph.	SS-1-2	Stillwater
Markland, Waldo C.	C. and M., Sr.	SS-1-2	Stillwater
Maroney, Mildred	C. and M., Fr.	1-2	Stillwater
Marshall, Ernest W.	Agri., Spec.	1-2	Winfield, Ala.
Martin, Emil	C. and M., Fr.	1-2	Deer Creek
Martin, LeRoy	Secondary	1-2	Stillwater
Martin, Samuel Arthur	Voc. Agri.	1	Preston
Marx, Harold B.	C. and M., Fr.	1	Pawnee
Mason, Harry L.	Agri., Spec.	1-2	Oklahoma
Mason, John	C. and M., Fr.	1-2	Guthrie
Massey, Floyd P.	Trades	SS-1-2	Grandbury, Texas
Matejowsky, Emmett	Secondary	-2	Rowena, Texas
Matejowsky, Rupert	Secondary	-2	Rowena, Texas
Matkin, Geo. H.	Arch., Soph.	-2	Stillwater
Matkin, Harold	C. and M., Fr.	1-2	Stillwater

Mathis, Lester M.	Secondary	1	Stillwater
Matthews, R. C.	C. and M., Jr.	1-2	Mu hall
McAdams, T. P.	C. and M., Soph.	1-2	Stillwater
McBrayer, Major B.	V. A.	1	Reed
McBrayer, Samue l	V. A.	SS-1-2	Reed
McCarrel, Mrs. Ed.	Educ., Special	-2	Stillwater
McCauley, Hettie	V. H. E.	1-	Olustee
McClahahan, Reuben	Secondary	1-2	Enid
McCluskey, Fred Wm.	Trades	1-2	Ranger, Texas
McConkey, R. E.	Engr., Fr.	1	Lawton
McConnell, Caroline	S. and L., Specia l	-2	Chicago, Ill.
McConnell. Edith	H. E., Fr.	-2	Chicago. Ill.
McCord. Otis L.	Educ., Special	-2	Stillwater
McCroskey, Edith	Bus.	SS-1	Stillwater
McCullough, Doris	Engr., Soph.	1-2	Tulsa
McCullough, Lloyd E.	C. E., Soph.	1-2	Collinsville
McDonald, Doris	Bus.	SS-1-2	Stillwater
McDonald, Leon J.	Agri., Jr.	1-2	Lindsay
McDonald, T. S.	C. E., Soph.	1-2	Walters
McFadden, Harry	V. A.	-2	Pawhuska
McFall, Wm. Kelso	Trades	1-2	Featherston
McGeorge, Ruth	Secondary	1	Stillwater
McGinnis, Robert H.	Engr., Fr.	1	Goodwell
McKee, Loren	C. and M., Fr.	1-2	Cooperton
McKee, Mary E.	H. E., Fr.	1-2	Mecker
McKenney, R. G.	V. A.	SS-1-2	Addington
McKittrick, Wayne	Secondary	1	Newcastle
McLaughlin, Geo.	Trades	1-2	Boynton
McLish, Glen	C. and M., Fr.	-2	Minco
McMillen, John	Agri., Fr.	1-2	Amarillo
McMillen, Martin B.	C. and M., Sr.	1	Stillwater
McMinn, Thadius A.	Agri., Spec.	SS-1-2	Jester
McMurtrey, Jett	Agri. Fr.	1-2	Shamrock
McMurtrey, Leo	Engr., Fr.	1-2	Altus
McNeff, Mrs. Alice	Secondary	SS-1-2	Stillwater
McNeff, Bernadine	Music, Special	1	Stillwater
McPherson, Lloyd H.	V. A.	1-2	Afton
McQuown, Lattie	Secondary	SS-1-2	Stillwater
McWethy, Marie	S. and L., Special	1-2	Stillwater
McWethy, Mead	Agri., Fr.	1-2	Stillwater
McWhorter, Nettie	Educ. Jr.	1-2	Soper
Means, Ethel Mae	H. E., Special	-2	Weatherford
Mehl, Marjorie	S. and L., Fr.	-2	Oklahoma
Melton, Loren	C. and M., Fr.	1-2	Stillwater
Mendell, Willis	Trades	1	Alva
Merical, Wm. O.	C. and M., Fr.	1-2	Custer
Merrifie'd, Maratha	H. E., Sr.	1-2	Enid
Merrill, Roy R.	C. and M., Jr.	1-2	Stillwater
Merritt, Donald M.	C. and M., Soph.	1-2	Stillwater
Methvin, Frank	Bus.	SS-1-2	Anadarko
Meyer, Arthur	V. A.	1-2	Hunter
Meyer, Joe E.	Engr., Fr.	1-2	Prague
Michael, Edgar	Engr., Jr.	1-2	Deer Creek
Michael, Edwin	C. and M., Fr.	1-2	Deer Creek
Mielitz, Gustav	V. A., Fr.	1-2	Garber
Mikles, R. C.	V. A.	-2	Little Rock, Ark.
Miller, James L.	V. A.	SS-1-2	Cleo Springs
Miller, Nancy Rice	H. E., Soph.	1-2	Oklahoma
Miller, Richard Ray	V. A.	-2	Stillwater
Miller, Velma	Secondary	1-2	Cordell
Miller, Willie C.	Agri.	SS-1	League City, Texas
Mills, William	S. V. A.	SS-1-2	Stillwater
Mitchell, Thompson D.	Secondary	12-	Rosedale
Mitchell, Edgar D.	Agri., Spec.	1	Hochatown
Mitchell, Ethel	H. E., Soph.	1-2	Stigler
Mitchell, Ross B.	C. and M., Soph.	1	Vinita
Molacek, Thos. E.	C. and M., Jr.	1	Sulphur
Molden, Garnet H.	Bus.	1-2	Stillwater
Monfort, H. V.	Special, Dairy	1	Owassa
Montgomery, James A.	V. A.	1-2	Oklahoma
Montgomery, Joe	Engr., Fr.	1-2	Sulpher
Montgomery, Vester	V. M., Soph.	1	Cloud Chief
Moore, G. A.	S. and L., Fr.	1-2	Pawnee
Moore, John E.	Engr., Soph.	1-2	Muskogee
Moore, John F.	Special	SS-1-2	Apache
Moore, S. Houston	Agri., Fr.	1	Renfrow
Moore. Lane A.	Agri., Fr.	1-2	Van Buren, Ark.
Moore, Wm. F.	S. and L., Fr.	1-2	Calumet

Mooring, Ben F.	V. A.	1-2	Wagoner
Moorman, Velera	Educ., Soph.	SS-1-2	Stillwater
Morgan, Leonard	V. M., Sr.	1	Stillwater
Morgan, Roy C.	Agri., Sr.	SS-1	Stillwater
Morgan, W. L.	Trades	1	Delaware
Morris, Chas. L.	V. A.	1	Fair Valley
Morris, Pauline	Edu., Sr.	1-2	Stillwater
Morris, Robert T.	V. A.	SS-1-2	Idabel
Morris, Tom	Sec.	1-2	Holly Creek
Morrison, E. L.	V. M., Fr.	1	Wetumka
Morrow, H. H.	Engr., Fr.	1-2	Gould
Morse, Joe S.	V. A.	SS-1-2	Brady, Texas
Morse, Wm. O.	Engr., Fr.	1-2	Duncan
Morton, John	V. A.	-2	Weatherford, Texas
Moseley, Josie	H. E., Sr.	1-2	Stillwater
Moser, Lena	Edu., Soph.	1-2	Yale
Moses, Amos	V. A.	1-2	Wynnewood
Moses, Andrew	Special, Agri.	1-2	McKinney, Texas
Mossler, Flora	H. E., Soph.	SS-1-2	Stillwater
Motley, Garland	Agri., Fr.	1	Hollis
Moyer, Earl	V. A.	SS-1-2	Edmond
Mullarkey, C. F.	Special Dairy	1	Charles City, Iowa
Munday, Lena	Special	-2	Ripley
Murphy, Elva	Sec.	1-2	Orlando
Murphy, Osa	V. A.	1	Apache
Murrey, Viola	H. E., Soph.	1-2	Drummond
Music, Willie T.	V. A.	SS-1-2	Stillwater
Myers, Arthur	Sec.	1-2	Apache
Myers, Mrs. C. C.	Bus.	-2	Oklahoma
Myers, Curtis C.	Trades	1-2	Oklahoma
Myers, Thelma	Sec.	SS-1	Stillwater
Myrick, Samuel D.	V. A.	1-2	Littleton, N. C.
Nash, Oram	Agri., Sr.	1-2	Padea
Neal Jason H.	V. A.	SS-1-2	Frisco
Neaves, Merle J.	Engr., Fr.	1-2	Tryon
Nehrbass, Herbert C.	V. A.	1-2	Vinita
Nehrbass, Paul J.	V. A.	1	Billings
Nelson, Billy B.	Agri., Sr.	1-2	Oklahoma
Nelson, Clyde C.	Engr., Fr.	1	Carrier
Nelson, Daniel	C. and M., Special	SS-1-2	Stillwater
Nelson, Eunice	Music, Fr.	SS-1-2	Stillwater
Nelson, Eyleen	Special	-2	Stillwater
Nelson, I. H.	S. and L., Sr.	SS-1-2	Stillwater
Nelson, Mrs. I. H.	S. and L., Special	2	Stillwater
Nelson, John E.	V. A.	1	Okemah
Nelson, F. Ray	Sec.	1-2	Medford
Neumayer, Eunice	H. E., Sr.	1-2	Ames
Newberry, Robert L.	V. A.	SS-1-2	Stillwater
Newman, Russell	Engr., Fr.	1-2	Lackney, Texas
Newton, Roy C.	Ch. E., Sr.	SS1-2	Stillwater
Nicholson, Bonnie	Agri., Fr.	1-2	Hoffman
Nicholson, Richard D.	Special	SS-1	Galveston, Texas
Nickolls, Charles L.	S. and L., Graduate	1-2	Esmond, S. D.
Noble, Wm. S.	C. and M., Fr.	1-2	Oklahoma
Norris, Ida	H. Econ., Fr.	1-2	Stillwater
Norris, John G.	Edu., Sr.	1-2	Stillwater
Norris, Loren	V. A.	1	Ames
Norton, Irene	Edu., Fr.	1-2	Kingfisher
Nowlin, I. E.	Special, Archi.	SS-1-2	Elmore City
Nowlin, Mrs. Ona	Special, Music	1-2	Stillwater
Nutter, Earl I.	Engr., Fr.	1-2	Anadarko
Ogle, Hazel	Special	1-2	Yuma, Colo.
Olcott, Lawrence	Engr., Fr.	1-2	Kingfisher
Olive, Otto Roy	V. A.	1	Rufe
Oller, Mart B.	V. A.	1-2	Allen
Olmstead, Claud W.	Engr., Fr.	SS -2	Luther
Olmstead, Ivan	C. and M., Special	1-2	Vinita
Olive, Roy	V. A.	1-2	Rufe
Oltmanns, Anna	S. and L., Fr.	1-2	Gotebo
Ormsby, Mrs. Leota	Bus.	1	Stillwater
Ormsby, LeRoy	C. and M., Special	SS-1-2	Stillwater
Orner, Sophia	H. E., Fr.	1-2	Stillwater
Outhier, Rolland C.	Agri., Soph.	1-2	Okeene
Osborn, Fred	Trades	1	Stillwater
Orner, Zephyr	V. H. E.	SS -2	Stillwater
Overstreet, Margaret M.	H. E., Jr.	-2	Cowlington
Overstreet, Russell	C. and M., Jr.	1-2	Cowlington

Overton, Paul	Engr., Fr.		1-2	El Reno
Owen, Willena	Edu., Soph.		1-2	Aurora, Mo.
Pace, Albert	Agri., Soph.		1-2	Welch
Page, Chas. V.	Engr., Special	SS-1-2		Douglas
Page, Chester B.	Engr., Fr.		1-2	Sõper
Palmer, Cherry	H. E., Fr.		·2	Collinsville
Pannell, John	Agri., Soph.	SS-1-2		Stillwater
Park, H. Clay	C. E., Soph.		1-2	Stillwater
Parker, Una	H. E., Fr.	SS-1-2		Stillwater
Parks, Allan	C. and M., Fr.		1-2	Altus
Parks, Thos. Ray	V. A.		1-2	Cheyenne
Parman, Vera	H. E., Jr.	SS-1-2		Stillwater
Parrish, Otis	Sec.		1	Bennington
Patrick, Ben J.	V. A.		·2	Oklahoma
Patterson, Mary Emma	H. E., Soph.		1-2	Walters
Patton, Pearl	Educ., Special		·2	Stillwater
Patton, William	Sec.		1	Stillwater
Paul, Henry D.	Engr., Soph.		1-2	Cushing
Paxton, Rozella	H. E., Fr.		1	Hillsdale
Paxton, Lawrence	Agri., Soph.		1	Jester
Pearce, Carl J.	C. and M., Soph.		1-2	Cushing
Peck, Daye	C. and M., Fr.		1-2	Comanche
Peebles, Mary	Educ., Fr.		1	Woodward
Peek, Charlotte	S. and L., Fr.	SS-1-2		Stillwater
Peek, Dorothy	S. and L., Fr.		1-2	Stillwater
Peeler, Lloyd	C. and M., Fr.		1-2	Guthrie
Pemberton, M.	C. and M., Fr.		1-2	Clinton
Penny, Harold G.	C. and M. Fr.	SS-1-2		Pawnee
Penquite, Robert	Agri., Jr.	SS-1-2		Tulsa
Penton, LeRoy S.	V. A.	SS-1-2		Gainesville, Texas
Penturf, Clarence	V. A.	SS-1-2		Stillwater
Percival, Chas. S.	A. Engr., Jr.		1-2	Stillwater
Perry, Lewis L.	Agri., Fr.	SS-1-2		Grove
Pettit, G. H.	Trades		1	Stillwater
Petty, Bernice G.	Agri., Soph.		1	Oklahoma
Petty, Blanche H.	Agri., Jr.		1-2	Oklahoma
Petty, Julia C.	Educ., Soph.		1-2	Oklahoma
Phillips, V. D.	C. and M., Special		1	Yukon
Phy, Arthur B.	V. A.	SS-1-2		Tulsa
Piepgrass, R. M.	V. A.		1-2	Alderson
Pitts, Joel G.	Engr., Fr.		1-2	Custer
Pitzer, Florence	Edu., Sr.	SS-1		Ingal's
Pitzer, Mary M.	Sec.	SS-1		Ingal's
Pitzer, Sydnie	Sec.		1-2	Stillwater
Pledger, John S.	Agri., Spec.	SS-1-2		Norman
Pock, Geo.	Sec.		1-2	Ripley
Pock, Gladys	Sec.		1-2	Mehan
Pointer, George	Sec.		1-2	Lamar
Pollard, Mrs. J. D.	Bus.	SS-1		Stillwater
Pollard, Robert	C. and M., Fr.		1	Guthrie
Pope, Alonza J.	V. A.	SS-1		Hugo
Poschell, Ralph	C. and M., Fr.		1-2	Pleasant Valley
Potts, Henry C.	Agri., Soph.	SS-1-2		Headrick
Powers, Eugene B.	Sec.		1-2	Ripley
Powers, Louise	H. E., Fr.		1	Walters
Pratt, Roy O.	C. and M., Soph.		1	Enid
Pribbenow, Sophia	Special		1-2	Chandler
Priest, Clara	H. E., Jr.	SS-1-2		Sabetha, Kansas
Prince, Lena	C. and M., Spec.	SS-1-2		Stillwater
Prince, Mabel	C. and M., Fr.	SS-1-2		Stillwater
Proffitt, A. G.	V. A.		1	Anadarko
Pugh, Orio	Sec.		1-2	Ardmore
Pullian, Gordon E.	C. and M., Jr.		1-2	Cushing
Pullin, B. J.	V. A.	SS-1-2		Hazel
Purviance, Nell	H. E., Fr.		1-2	Guthrie
Putman, Howard	V. A.	SS-1-2		Whiting, Ind.
Putman, Willie	Sec.		1	Sharon
Quinn, Edwin S.	C. and M., Fr.		1	Tulsa
Race, Melvin	C. and M., Fr.		1-2	Shawnee
Ragan, Joseph T.	Agri., Fr.		1-2	Vinita
Rake, Dorothy	S. and L., Spec.		1-2	Yale
Ramsey, William S.	Trades		1-2	Bartlesville
Randolph, Robert R.	Agri., Sr.		1-2	Fresno, Calif.
Randolph, Myrtle	Secondary		1	Ripley
Rapp, Miriam	H. E., Sr.		1-2	Watonga
Rasmussen, Jerd M.	Agri., Fr.	SS-1-2		Hayward

Rasmussen, Marie	Sec.	1-2	Hayward
Rasmussen, Sylvia	H. E., Fr.	SS-1-2	Hayward
Ratcliff, Thelma	Sec.	-2	Piedmont
Ray, Alden E.	V. A.	1-2	Cordell
Ray, Louise	C. and M., Fr.	1-2	Stillwater
Ray, Thomas Wilber	C. and M., Soph.	1	Stillwater
Redmond, Affie	Bus.	1	Cache
Reece, Eulah	Special, Music	1	Stillwater
Reece, Jesse L.	V. A.	1-2	Miller
Reed, Effie	C. and M., Special	-2	Stillwater
Reed, Mrs. Flora B.	S. and L., Fr.	-2	Stillwater
Reed, G. N.	S. and L., Jr.	1-2	Stillwater
Reed, Otis C.	Agri., Jr.	SS-1-2	Washington
Reichman, Curtis	C. and M., Soph.	SS-1-2	Stillwater
Reichman, Ida	S. and L., Sr.	1-2	Stillwater
Reichman, Winnie	C. and M., Fr.	1-	Stillwater
Reid, Lynn A.	C. and M., Fr.	1-2	Stillwater
Remington, Della May	Educ., Fr.	SS-1-2	Avery
Renfrow, Henry Franklin	C. and M., Fr.	-2	Durant
Rey, Walter A.	Engr., Fr.	SS-1-2	Oklahoma
Reynolds, Bruce	Agri., Fr.	1-2	Broken Arrow
Reynold, Jack H.	V. A.	1-2	Bokhoma
Rhoads, Phillip J.	C. and M., Fr.	1-2	Davidson
Rice, Ethel A.	Special	1-2	Bentonville, Ark.
Rice, Opal W.	V. A.	1	Apache
Richards, A. P.	Sec.	SS-1-2	Stillwater
Richards, Cornilea	Sec.	1-2	Stillwater
Richardson, Florence	H. E., Soph.	SS-1-2	Stillwater
Richardson, Meek	Engr., Fr.	1-2	Electra, Texas
Rickstrew, Carol	Sec.	1-2	Meridian
Rickstrew, Leafy	Sec.	1-2	Meridian
Riley, Ray	C. and M., Fr.	1-2	Ideal, Texas
Rinehart, Mabelle	H. E., Jr.	1-2	Ramona
Rinehart, Maude	H. E., Jr.	1-2	Ramona
Rios, Jose	Special	SS-1-2	Agana, Guam
Roak, Alonza	V. A.	SS-1-2	Stillwater
Robbins, O. R.	Trades	1-2	Ralston
Roberts, David E.	V. A.	SS-1-2	Kusa
Roberts, Ed	Sec.	1-2	M Loud
Roberts, Minnie	H. E., Fr.	SS-1-2	Stillwater
Roberts, M. O.	Engr., Fr.	1-2	Welch
Robertson, Lola	Bus.	-2	Stillwater
Robertson, Marguerite N	E., Soph.	1	Apache
Robertson, Merle	Engr., Fr.	1	Apache
Robison, Edgar I.	V. A.	-2	Hugo
Robinson, V. V.	V. A.	SS-1-2	Mena, Ark.
Rogers, Taylor	Engr., Fr.	1-2	Iowa Park, Texas
Rollins, Geo. C.	V. A.	SS-1-2	Haskell
Romine, Gene	C. and M., Fr.	1-2	Kremlin
Roop, Marguerite	H. E., Sr.	1-2	Chandler
Rosario, R. Juan	Special	SS-1-2	Agana, Guam
Rose, Azle	V. A.	1	Depew
Rosebush, Allen	Engr., Fr.	1-2	Tecumseh
Rosebush, Marion	Special	SS-1-2	Tecumseh
Ross, Wm.	C. and M., Fr.	1-2	Guthrie
Rottmayer, Max	V. A.	SS-1-2	Knowles
Rouse, Edna	C. and M., Fr.	1-2	Pleasant Valley
Howe, Clyde F.	Agri., Fr.	1-2	Amber
Rowley, S. E., Jr.	Engr., Soph.	1-2	El Reno
Rust, Fern	Bus.	1	Stillwater
Ruyle, Harold L.	C. and M., Soph.	1-2	Walters
Ruyle, Warren W.	V. A.	SS-1	Hinton
Sablon, Ramon M.	Sec.	SS-1-2	Agana, Guam
Sackett, Francis H.	V. A.	1-2	Aline
Sackett, James S.	V. A.	1-2	Aline
Sadlo, Edward C.	Engr., Sr.	1-2	Prague
Sadlo, Geo. W.	C. and M., Fr.	1-2	Prague
Sale, W. Claude	C. E., Jr.	1-2	Stillwater
Sale, Robert B.	C. and M., Soph.	1-2	Shawnee
Sanders, Quincy A.	Agri., Fr.	1-2	Kingfisher
Sanford, Lawrence	Sec.	1	Pawnee
Sarver, Miriam	Educ., Soph.	1	Lamont
Sautbine, Lyne R.	V. A.	SS-1	Oklahoma
Savage, Edna Thelma	H. E., Fr.	1-2	Hollis
Savage, Eunice Mae	H. E., Soph.	1-2	Hollis
Scarlett, Ray	C. and M., Fr.	1-2	Goltry
Schacher, Sadie	Sec.	1-2	Stillwater
Schartz, Bessie	V. H. E.	-2	Stillwater

Schedler, E. W.	C. and M., Soph.	1-2	Stillwater
Schiefelbusch, T. L.	S. and L., Special	1-2	Stillwater
Schlosser, Wilber	Agri., Fr.	1-2	Lawton
Schrieber, Lawrence	C. and M., Special	1-2	Garber
Schulz, Agnes	H. E., Fr.	1-2	Frederick
Scott, I. C.	C. and M., Soph.	1-2	Enid
Scott, T. May	H. E., Sr.	1-2	Sapulpa
Scroggs, Wm. A.	C. and M., Jr.	1-2	Stillwater
Seaboch, Clarence H.	Agri., Sr.	1-2	Blackwell
See, Iva	H. E., Sr.	1	Tonkawa
Seikel, Frances	Sec.	SS-1-2	McLoud
Sell, Blanche	Sec.	1-2	Frederick
Settergreen, Lottie	H. E., Jr.	1-2	Lamont
Shanklin, Roscoe	C. and M., Jr.	1-2	Medford
Shannon, Cecil J.	C. and M., Fr.	1-2	Stillwater
Shannon, Edfred L.	Agri., Soph	-2	Durant
Shannon, Raymond D.	C. and M., Sr.	1-2	Stillwater
Shapley, Robert F.	Agri., Fr.	1-2	Guymon
Sharp, Anna	Sec.	1-2	Orlando
Sharp, Carl F.	Engr., Fr.	1-2	Tulsa
Shattuck, Ollie	H. E., Sr.	SS-1	Guymon
Shaver, Jay C.	V. A.	-2	DeKalb, Texas
Shaw, Clarence C.	C. E., Sr.	1-2	Wewoka
Sheffield, Dick T.	Sec.	1	Baron
Shelton, Layton C.	Agri., Sr.	SS-1-2	Gould
Sherman, Elsie	Sec.	1-2	Mulhall
Sherrard, Olive	H. E., Sr.	1-2	Centerville, Iowa
Shimizu, Antono	Bus.	SS-1-2	Agana, Guam
Shirley, Emory G.	Ch. Engr., Jr.	SS-1-2	Apache
Shirley, Gladys	Music, Soph.	SS-1-2	Apache
Shuck, Rita	H. E., Fr.	1-2	El Reno
Silang, I. L.	Edu., Fr.	-2	Rila
Simmons, Claude	C. and M., Fr.	1-2	Ponca
Simmonson, M. Lee	Engr., Fr.	1-2	Loveland
Simpson, Emma Dorothy	H. E., Fr.	-2	Stillwater
Simpson, Wm. B.	C. and M., Fr.	1-2	Stillwater
Sinclair, A. S.	Trades	SS-1	Marshall, Texas
Sittel, Clarence W.	Agri., Special	-2	McAlester
Sittel, Clementine	H. E., Soph.	1	McAlester
Sittel, Virgil	Engr., Soph.	1-2	McAlester
Skaer, Opal	H. E., Sr.	1-2	Augusta, Kansas
Skaer, Pauline	H. E., Soph.	1-2	Augusta, Kansas
Skarra, Emelia M.	Special	-2	Port Arthur, Canada
Skinner, Emory M.	Engr., Fr.	1-2	Stillwater
Slocum, Clarence	V. A.	1-2	Enid
Smart, Eva	H. E., Fr.	1-2	Stillwater
Smart, Harold	C. E., Soph.	1-2	Stillwater
Smelser, Carl A.	C. and M., Fr.	1-2	Cooperton
Smiley, Keith	Engr., Fr.	1-2	Tulsa
Smith, Basil	Sec.	1	Avery
Smith, Claude	V. A.	1-2	Stillwater
Smith, Coy	Engr., Fr.	1-2	Stillwater
Smith, A. Flossie	H. E., Fr.	1-2	Kingfisher
Smith, Gray	V. A.	-2	Hartford, Ark.
Smith, John McClain	V. A.	-2	Bliss
Smith, Allen John	V. A.	SS-1-2	Owasso
Smith, John E.	Trades	1	Doxey
Smith, Walter	Sec.	SS -2	Vici
Smith, J. M.	C. and M., Fr.	1	Grandfield
Smith, Luella	C. and M., Fr.	1-2	Stillwater
Smith, Mildred	H. E., Soph.	1-2	Stillwater
Smith, Norman J.	C. and M., Fr.	1-2	Skedee
Smith, Oliver P.	S. and L., Fr.	1	Manchester
Smith, Sterling V.	V. A.	1-2	Noble
Smith, Warren	V. A.	1	Curtis
Smith, Wayne	Engr., Fr.	1-2	Stillwater
Sneary, Gladys	C. and M., Jr.	1-2	Driftwood
Snider, Beulah	C. and M., Soph.	1-2	Lindsay
Snow, Lewis L.	Engr., Fr.	1-2	Woodward
Snowden, Cleo	C. and M., Fr.	1-2	Stillwater
Snyder, Chester K.	Trades	SS-1-2	Stillwater
Soto, Ester (Clark)	Special	1	Alajuela, Costa Rica
Soule, Clayton E.	Engr., Sr.	1-2	Nowata
Soule, E. F.	Agri., Soph.	1-2	Beggs
Spencer, Eunice	Sec.	SS-1-2	Stillwater
Spencer, Lilly	H. E., Jr.	SS-1-2	Stillwater
Spilman, R. F.	Sec.	1-2	Silverton, Texas
Stacy, William A.	V. A.	SS-1-2	Blocker
Spurgeon, Faye	H. E., Jr.	SS-1-2	Stillwater

Stafford, Fred T.	Engr., Sr.		1-2	Pawnee
Stafford, Grace	Special		-2	Chicago, Ill.
Stafford, Joe D.	Agri., Sr.	SS-1-2		Stillwater
Stallings, H. C.	Engr., Fr.		1-2	Woodward
Stanberry, Hubert A.	V. A.		1-2	Wagoner
Stanford, James	Sec.		-2	McLoud
Stanford, W. E.	Agri., Fr.		-2	McLoud
Stanley, M. C.	Engr., Fr.		1	Ponca City
Staples, Robert Lee	V. A.		1	Bristow
Starr, Robert C.	Agri., Soph.		1-2	Fay
Staten, Bertha	Sec.	SS-1-2		Agra
Staten, Glen	Sec.		1-2	Agra
Staten, Hi	Sec.	SS-1-2		Stillwater
Stavely, Charlie	Engr., Fr.		1-2	Shawnee
Steel, James	V. A.		1-2	Glenn
Steele, Jeanne	Edu., Sr.		1-2	Whiteagle
Steele, M. G.	C. and M., Soph		1-2	Whiteagle
Stephens, Chester	V. A.	SS-1-2		Stillwater
Stevens, Carl	M. E., Sr.		1-2	Quapaw
Stewart, Mrs. Frances	Special		-2	Dewey
Stewart, Clarence	Trades	SS-1-2		Baltimore
Stewart, Geo. W.	V. A.		-2	Ripley
Stewart, Hubert L.	V. A.	SS-1-2		Stillwater
Stinson, Kathryn	H. E., Fr.		1-2	Holly, Colo.
Stinson, Myrtle	H. E., Fr.		1-2	Holly, Colo.
Stockton, Harold	Engr., Fr.		1-2	Ponca
Stokes, A. E.	V. A.		1-2	Duncan
Stokes, Eva	H. E., Spec.		1-2	Stillwater
Stokesberry, Raymond	Engr., Fr.		1-2	Oklahoma
Stone, Blair H.	M. E., Sr.		1-2	El Reno
Stone, Jane L.	Special		1	Stillwater
Stone, Marie	H. E., Jr.	SS-1-2		Clinton
Stout, Alice	Sec.		1-2	Stillwater
Stout, Orval	Engr., Special		1-2	Stillwater
Stout, Ruth	Sec.	SS-1-2		Stillwater
Straughen, Florence	H. E., Jr.		1-2	New Orleans, La.
Strange, Douglas	Sec.		1	Stillwater
Strickland, Edgar L.	V. A.	SS-1-2		Hollis
Strickland, Stella B.	H. E., Special		1-2	Hollis
Strozier, Andrew	E. E., Soph.		1-2	Red Oak
Stubblefield, E. E.	C. E., Sr.		1-2	Pawhuska
Sturgis, A. C.	Engr., Soph.		1-2	Guthrie
Sturgis, Nelson H.	S. and L., Soph.		1-2	Guthrie
Sturgis, Lela	H. E., Soph.	SS-1-2		Guthrie
Sublett, Taylor L.	Engr., Fr.		-2	Oklahoma
Sugg, Herbert	Agri., Sr.	SS-1-2		Lone Wolf
Sullivan, Claude S.	Agri., Sr.		1-2	Okmulgee
Sullivan, Doyle	C. and M., Fr.		-2	Okmulgee
Sundell, Laurabel W.	S. and L., Fr.		-2	Mason City, Iowa
Swanner, H. T.	Engr., Special		1-2	Woodward
Swanson, Ruth	Agri., Fr.		1-2	McAlester
Swartz, Bula	C. and M., Fr.		1-2	Stillwater
Swift, W. J.	Engr., Fr.		1-2	Broken Arrow
Swim, E. E., Jr.	Ch. E., Soph.	SS-1-2		Stillwater
Swing, E. Q.	V. A.		1-2	Elk City
Taggart, Joe B.	Agri., Fr.		1	Waukomis
Talbutt, Robert	V. A.		1-2	Pawhuska
Tally, B. B.	Engr., Fr.		1-2	Enid
Talley, Ted R.	C. and M., Fr.		1-2	Hester
Tatum, Harry A.	C. and M., Soph.	SS-1-2		Stillwater
Tatum, Hilda	Special	SS-1-2		Stillwater
Tatum, Mary C.	S. and L., Soph.	SS-1-2		Stillwater
Taylor, Alma	H. E., Fr.	SS-1-2		Stillwater
Taylor, Clarence P.	Agri., Jr.	SS-1-2		Stillwater
Taylor, C. R.	E. E., Soph.		1-2	Waurika
Taylor, Frank P.	V. A.		-2	Vinita
Taylor, Fred L.	C. and M., Soph.		1-2	Chandler
Taylor, Geo. J.	V. A.		1-2	Caney, Kansas
Taylor, Mary Alice	S. and L., Fr.		1-2	Stillwater
Taylor, Ross	V. A.		-2	
Taylor, Thelma	Sec.		1-2	Guymon
Teater, William G.	V. A.		1-2	Childress, Texas
Terry, Gerald C.	Engr., Fr.		1-2	Shamrock
Tesone, Silver	A. E., Sr.		1-2	Wilburton
Thomas, Edna	Sec.		1-2	Stillwater
Thomas, Willie F.	V. A.	SS-1-2		Hoffman
Thompson, Henry P.	C. and M., Fr.		1	Ralston
Thompson, Ona H.	Agri., Special	SS-1-2		Hollis

Thompson, Ruby	H. E., Fr.	1-2	Okemah
Thornton, Anna G., Mrs.	Special	1-2	Stillwater
Thornton, Leland	Trades	SS-1	Stillwater
Tice, Murriel	H. E., Fr.	1-2	
Tims, Virgil E.	Engr., Fr.	1	Paden
Todd, Sidney	Sec.	1-2	Tulia, Texas
Toler, G. Geo.	C. E., Soph.	1-2	Pawnee
Toler, Wm. D.	C. and M., Fr.	1-2	Jennings
Trautmann, Bertha	Sec.	1-2	Stillwater
Travers, Mrs. Alice B.	Edu., Special	SS-1-2	Stillwater
Trevithick, Gladys	S. and L., Graduate	1-2	Hitchcock, S. D.
Triplett, Wm. G.	Agri., Fr.	1-2	Claremore
Trudeau, Clarice	S. and L., Soph.	1-2	Placerville, Colorado
Tripp, Neva	Sec.	1-2	Stillwater
Trusselle, Ruth K.	H. E., Special	1	Stillwater
Tucker, Lucille	Special Music	1	Stillwater
Turner, Mildred	H. E., Sr.	1	Pawnee
Umbach, Arnold	V. A.	1-2	Indianapolis
Umbach, Roy D.	V. A.	1-2	Indianapolis
Unzicker, Beulah	H. E., Sr.	1-2	Edmond
Upp, Charles W.	Agri., Soph.	1-2	Chelsea
Van Beveren, Raymond	V. A.	SS-1-2	Gonzales, Texas
Van Buskirk, H. M.	C. and M., Fr.	1-2	Enid
Van De Mark, Laura (Gudgel)	C. and M., Fr.	1-2	Stillwater
Van Valkenburg, N. P.	Agri., Soph.	1-2	Deer Creek
Van Zandt, Fred D.	V. A.	SS-1-2	Stillwater
Varnum, J. E.	C. and M., Sr.	1-2	Earlsboro
Varnum, Lucille	H. E., Fr.	1-2	Earlsboro
Varnum, Robert D.	Agri., Jr.	1-2	Earlsboro
Vaughen, Velma	Music, Fr.	SS-1-2	Stillwater
Vermillion, Carrie	H. E., Jr.	1-2	Perry
Victor, Roy	Trades	1-2	Hemphill, Texas
Vincent, Robert B.	Sec.	1	Claremore
Vinyard, Gus	Trades	1	Vinita
Von Hagen, Verda	S. and L., Jr.	1-2	Stillwater
Von Keller, Helen	H. E., Fr.	-2	Ardmore
Voyles, Carl	C. and M., Sr.	1-2	Stillwater
Voyles, Claude	C. and M., Fr.	1-2	Stillwater
Wade, Arthur	V. A.	SS-1-2	Blevins, Ark.
Wade, Mrs. Arthur	Special	SS -2	Stillwater
Wade, Gertrude	H. E., Sr.	SS-1-2	Coyle
Wagner, Leona	Sec.	1-2	Orlando
Waldrop, O. M.	Sec.	1-2	Carter
Walker, Allen	Engr., Soph.	1-2	Ryan
Walker, Edith	H. E., Sr.	1-2	Ryan
Walker, Marvin	C. and M., Special	-2	Oklahoma
Wall, Frank	C. and M. Special	1-2	Minco
Wall, Robert N.	Agri., Soph.	-2	Perkins
Wallace John A.	C. and M., Jr.	1-2	Leedey
Walls, Ruby	Sec.	1	Skedee
Welsh, Claude L.	C. and M., Fr.	SS-1-2	Los Angeles, Calif.
Walsh, Mike	Sec.	1	Wister
Ward, E. B.	Sec.	1-2	Chester
Watson, Georgia H.	H. E., Fr.	1-2	Claremore
Watson, Nellie	H. E., Fr.	1-2	Chandler
Watterson A. V.	V. A.	-2	Meade
Weaver, Walter	C. and M., Soph.	1-2	Stillwater
Weatherford, Curtis	Special	SS-1-2	Monroe
Webb, Guy P.	Engr., Fr.	1-2	Wakita
Webb, Milton	V. A.	1	Terral
Webb, Rilla	Sec.	1	Terral
Weesner, Thyra	C. and M., Fr.	1-2	Oklahoma
Weiss, Mary	H. E., Sr.	SS-1-2	Harrah
Welch, John P.	V. A.	SS-1-2	Oglesby
Wells, G. Cecil	Engr., Soph.	1-2	Kingston
Wells, John	V. A.	1-2	Antlers
Wells, Lloyd	Engr., Fr.	1-2	Tulsa
Wells, Wilber H.	C. and M., Fr.	1-2	Jet
Wertz B. L.	C. and M., Sr.	1-2	Pauls Valley
West, J. C.	Trades	1-2	Stillwater
Westmoreland, Sarah T.	Edu., Special	1	Choctaw
Wetzel, Leo M.	Engr., Fr.	1-2	Perry
Wharton, Lola Carpenter	Sec.	1-2	Stillwater
Whipple, Orval C.	C. and M., Special	-2	Stillwater
Whipple, Pauline	Special	SS -2	Stillwater
Whistler, John M.	Sec.	-2	Boynton

Whitaker, Florence	S. and L., Soph.	1-2	Stillwater
Whitaker, Helen	H. E., Soph.	1-2	Stillwater
Whitaker, Rosana	H. E., Fr.	1	Burkburnett, Texas
White, Ethel	V. H. E.	1-2	Page
White, Frank	Special Dairy	1	Prescott, Ark.
White, Herbert J.	Agri., Fr.	1	McLoud
White, Pat	C. and M., Fr.	1-2	Chickasha
Whitlock, Flossie	V. H. E.	1-2	Maramec
Whittenberg, Frank	Engr., Fr.	1-2	Stillwater
Whittenberg, Geo. W.	C. E., Sr.	1-2	Stillwater
Whorton, Lester	Special	-2	Delaware
Wickoff, Fred	Trades	SS -2	Stillwater
Widener, Ray	Agri., Fr.	1-2	Jefferson
Wilber, Herbert Fred	C. and M., Jr.	1-2	Guthrie
Wiles, Alma	Bus.	1-2	Glencoe
Wiley, Frank J.	Agri., Special	1-2	Stillwater
Willard, Ray	Engr., Fr.	1	Celina, Texas
Willham, Oliver	Agri., Soph.	1-2	Randlett
Williams, Tine	H. E., Soph.	SS-1-2	Randlett
Williams, Armon	M. E., Sr.	1-2	Marshall
Williams, Howard	Agri., Jr.	1-2	Keota
Williams, John T.	Engr., Special	1	Wewoka
Williams, Paul	C. and M., Jr.	1-2	Stillwater
Williams, William	Engr., Soph.	1-2	Marshall
Williman, Chas. N.	Special	SS-1	Davidson
Wilson, Albert	C. and M., Soph.	-2	Vici
Wilson, A. Edwin	Agri., Fr.	1	Brownwood, Texas
Wilson, Faye	H. E., Fr.	1-2	Tulsa
Wilson, Hubert C.	Agri., Fr.	1-2	Homestead
Wilson, J. E.	V. A.	SS-1-2	Springfield, Ark.
Wilson, R. E.	C. and M., Fr.	1	St. Joseph., Mo.
Wilson, R. L.	C. and M., Fr.	1-2	Valliant
Wilson, Robert W.	V. A.	SS-1-2	Wilburton
Wilson, Toru	Music, Fr.	1	Valliant
Wilson, Virgil	Engr., Fr.	1-2	Ripley
Wilson, W. P.	Agri., Jr.	1-2	Leonard, Texas
Wimpey, Ernest	C. and M., Fr.	1-2	Fairview
Winkler, Sewell	Agri., Fr.	1	Ashdown, Ark.
Winters, Elijah	V. A.	1	Wetumka
Wishnieff, Joseph	S. and L., Sr.	1-2	Sheldon, Ill.
Withers, Addie	H. E., Sr.	1-2	Stillwater
Witherspoon, Clyde I.	V. A.	-2	Ravenna, Texas
Withgott, Chas. B.	Engr., Fr.	1-2	Woodward
Witt, C. A.	Engr., Fr.	1	Guthrie
Witt, Henry V.	Agri., Fr.	1-2	Lindsay
Wittich, Grace	C. and M., Soph.	1-2	Tulsa
Wolaver, W. H.	Engr., Fr.	1-2	Perry
Wolff, J. P.	S. and L., Sr.	SS-1-2	Waukomis
Wood, Esther	Bus.	-2	Bushyhead
Wood, Ina M.	H. E., Fr.	1-2	Stillwaer
Wood, Paul H.	E. E., Jr.	1-2	Lahoma
Wood, Robert E.	S. and L., Sr.	1-2	Watertown, S. D.
Wood, Theo	Trades	1-2	Bushyhead
Wood, Sally	H. E., Sr.	-2	Hillsboro, Texas
Wood, William	Trades	-2	Bushyhead
Wood, Zallie E.	Engr., Fr.	1	Laramie, Wyoming
Woodman, Elijah E.	V. A.	-2	Gould
Woodring, Clarrissa	C. and M., Soph.	1-2	Stillwater
Woodring, Harry C.	Engr., Fr.	1-2	Stillwater
Woodring, I. A.	Engr., Fr.	1-2	Enid
Woodruff, E. Lee	V. A.	SS-1	Wilburton
Woodworth, Alex	S. and L., Soph.	1-2	Minco
Woolard, C. I.	C. and M., Soph.	1-2	Stillwater
Wooth, Owen Z.	Agri., Fr.	SS-1-2	Fletcher
Worrell, Mary Jane	Sec.	1-	Hunter
Wright, Arthor H.	C. and M., Fr.	1-2	Stillwater
Wright, Florence	Music, Fr.	1-2	Stillwater
Wright, Hazel	H. E., Fr.	1-2	Perry
Wright, Herbert	Agri., Fr.	1-2	Baird
Wrigley, Chilton	E. E., Soph.	-2	Frederick
Wyant, Edith	H. E., Soph.	1-2	Orlando
Wyatt, Wm. B.	Agri., Soph.	1-2	Perry
Wycoff, Eleanore Irene	H. E., Jr.	1-2	Manchester
Wysong, Beulah	Music, Fr.	-2	Stillwater
Young, Francis W.	C. and M., Special	SS-1-2	El Reno
Young, J. Clinton	Ch. E., Jr.	1-2	Stillwater
Young, John G.	Agri., Fr.	1-2	Stillwater
Young, Lela	H. E., Fr.	1-	Stillwater

Young, Nolan	C. and M., Fr.	1-2	Ada
Young, Raymond	Sec.	1-2	Stillwater
Young, Verle	Edu., Sr.	12	Stillwater
Younger, Edgar B.	V. A.	1	Oklahoma
Zahler, Imogen	Edu., Fr.	1-2	Shawnee
Zalabak, T. B.	C. and M., Soph.	1	Kingfisher
Zears, Chas.	Agri., Jr.	SS-1-2	Stillwater
Zeman, John K.	C. and M., Jr.	1-2	Medford
Zink, David D.	Engr., Fr.	1-2	Muskogee

SUMMER SESSION STUDENTS

Akers, Eleanor
Alcott, Zelma
Allen, Hazel
Anderson, Mrs. Anna
Arms, Jaunita
Arnold, Chas. W.

Buckhaus, Louise M.
Buckhaus, Minnie
Bagby, Caroline
Baird, Lucille
Baldwin, Myrtle
Barber, Mammie
Barde, Letha
Barnes, Murrel
Bartow, John
Bass, Mrs. Gladys
Bass, Walter L.
Beatty, Helen C.
Beck, Paul V.
Bellis, Zola
Benton, Hazel
Berry, Marion
Berryman, C. C.
Black, Lillian
Blackburn, J. T.
Blasingame, A. J.
Blasingame, Mrs. A. J.
Bledsoe, Laura
Bledsoe, Ulala
Bly, Flossie
Boller, Esther
Bradford, Florence
Breeding, Glenn
Brenton, S. C.
Brenton, Mrs. S. C.
Briggs, Nellie
Briley, Grace
Brock, Mary D.
Brown, Carrie
Brown, Clara
Broyles, Ruby
Budzene, Anna
Budzene, Ella
Bullock, Elois
Burnham, Margaret
Burnett, Esther

Caldwell, Lenore
Canfield, Ruby
Cantwell, Carolyn
Carlton, Lee H.
Carper, Merle
Chrystal, Bee
Clark, Gladys
Clasby, Willie
Clingenpeel, Lillian
Clingenpeel, Mae
Clump, Thomas D.
Coen, Bess
Coffer, George V.
Collins, Mabel
Cooper, Lela
Cook, Eva
Cowan, J. P.
Cox, C. P.
Cox, Irma
Cox, Frank
Cross, Guy L.
Cruzan, Ethel
Cunningham, Josie
Cunningham, Beulah
Curry, Kathleen
Cutright, Wilma

Dale, Florence
Darlow, Margaret
Davis, Hawthorne
Davidson, Nellie
Davidson, Frances
Davis, Ethel
Danek, Raymond J.
Day, Lucy
Deering, Mae
Deering, Alma
DeWitt, Grace
Dillingham, Irene
Dillman, Ruth
Dodson, Opal
Dryden, Mollie
Doss, H. A.

East, Marion
Eastwood, Julia
Elledge, Lillian
Ellis, Anabel
Emert, Emina
Eskew, Lyda Mae
Evanhoe, Irene

Fair, R. M.
Fairchild, Helen
Fairless, Leta
Farr, Irene
Fiala, Lillie
Finch, Fae
Finley, Mrs. Walter
Finley, Walter
Fletcher, W. J.
Flower, Florence
Flynt, Grace
Ford, Joan
Fortman, William Godfrie
Foster, Annabel
Friedemann, Marie
French, Laura

Gamble, J. P.
Gardner, Chas. G.
Garrett, Lillian
Gassaway, D. B.
Geardy, Myrtle
Gertsen, Pearl
Gilleland, Ruby
Gilleland, Zealan
Gladney, John R.
Glanville, Mrs.
Goodholm, Inez
Grant, Minnie
Graves, Mildred
Graves, Lauretta
Graves, Mary
Gray, Grace
Gray, Susan E.
Grayson, C. E.
Greer, Althea
Grice, Ray

Haag, Kathryn
Hainey, Esta
Hall, Clyde
Hanks, Edna
Harnden, Leila B. Spencer
Harnden, Marie Simmons
Harold, Dorothy
Harrell, Leona
Harris, Lura
Harris, Nora
Harrison, Kara
Haught, Freeda
Heisterhagen, F. I.
Hesser, Mildred
Hesser, Mima
Hickley, L. C.
Hilburn, Icye
Hinkle, Bess
Hodge, Ruby
Hoeffer, Berdie
Hogan, Dick
Hopkins, Mrs. Flora
Hornberger, Bertha
Horning, Mabel
Howard, Herman
Howard, Lavelle
Hudgins, Georgia
Hudsen, Maxine
Hughes, Dolly
Huffman, T. J.
Hull, Gladys
Hughes, George F.
Hunt, Lucille
Hunt, Glynn W.
*Hunt, Winifred

*Deceased.

Isenberg, Lucille
Isenberg, Olivia
Isenberg, Verna
Ivy, Ethel
Ivy, Gertrude

Janz Simon Peter
Jenkins, Ernest
Jenkins, Mattie
Jester, Lois
Jeter, Harry
Johnston, Helen
Johnson, Lloyd
Johnston, Mildred
Jones, Charlotte

Kasl, Thelma
Keeton, Ollie
Keeton, Florence
Kelly, Mabel
Kelley, Roland
Kennemer, Grace
Ketch, Aurvil
Kibler, J. B.
Kile, Eugene
Kile, Ada
Kiberlin, Pete
Kingsley, Lisette
Kirk, Addie
Kirkpatrick, Katie
Klaber, Mattie Lee
Knox, Ruby
Kraus, Louise
Kreider, Ruth

Lackey, M. Zea
Lamb, M. Edna
Lambert, Edna
Langston, A. L.
Lanman, Lyman
Lee, Truman
Leach, Netrola
Leach, Nitola
Leer, Laura
Lhew, Elton
Lewis, Eva
Lewis, Lee
Lillard, Violet
Lingenfelter, Emma
Lowery, Oscar
Loyd, Ben

Maloney, Loreen
Maness, Mrs. T. H.
Markland, Thelma
Markwell, Ethel
Masheter, Beulah
Massey, Mollie
Mathews, Thelma
Manch, Clara
Mauch, Louise
McAninch, Lola
McCollom, J. W.
McCollough, Lucie
McDowel, Gladys
McGaugh, R. E. L.
McKnight, Goldie
McGeorge, Mary
McLane, Lottie
McNeely, O. D.
McNeely, Vivian
McWethy, Faye
Majors, C. L.
Michaels, Ruth
Middlebusher, Mabel
Miller, Verda
Miller, Ruth
Miller, Gladys
Miller, Stanley
Moon, Jas. M.
Moore, Beulah
Moore, Scott B.
Moser, Lena
Murray, J. H.
Myers, Sam

Nash, C. W.
Nash, Florence
Nelson, Sallie B.
Northrip, Ota
Northrip, Hazel

O'Kelley, Clara
Orner, Leona

Park, Mrs. Hattie C.
Patton, Ruth
Payne, Nora
Payton, Blanche
Pearson, Imogen
Peck, Dora
Peery, Harold
Peery, Gordon,
Peter, Charles
Phillips, Ruth
Poole, Mrs. E. T.
Potter, Stella
Potts, Mabel
Powell, Vivian
Powell, Thelma
Powers, Leila
Purse, Marguerite

Pyburn, J. A.
Rader, Sarah
Raffety, Sarah
Ramsey, Geneve
Rathbun, Eula
Rathbun, Ethel
Ratroff, Loto
Ray, Marion
Reaves Daisy
Records, Geneva
Redic, Twila
Richardson, Edward L.
Richards, Lucille
Richardson, Maude
Robinson, Eva
Rogers, Anna
Rusher, Helen
Ruff, Peggy
Rylander, Geo.

Schatz, Ruth
Schooler, Bessie
Scott, Lucy
Searcy, Carl
Sewell, Leslie
Scaffer, Fay
Shaffer, Cecile
Shattuck, May
Shelton, Mrs. Francis
Sherrod, Alberta
Sherrard, Lois
Simmons, C. D.
Smart, Leone
Smith, Anna
Smith, Bettie
Smith, Homer
Smith, Mae D.
Smith, Nellie
Snoddy, Annie Mary
Snoddy, Mattie Lee
Sorrell, Vella
Spencer, Lilly M.
Spurgeon, Hazel
Stallings, Velda
Standley, Velma
Stanley, J. C.
Steele, Verna
Stewart, Ennis
Stout, Tilie
Stout, W. M.
Studebaker, Rosa
Suman, Susie

Tankersley, Mrs. Kate
Thomas, Fannie
Thomas, Kathryn
Thompson, Norma
Thomas, Beulah
Tisdale, Loyd
Toler, Mrs. Belle
Tollison, J. W.
Tolleson, Susie

Vail, Ruth
Vaughn, Myrtle
Vogel, Nira

Waddle, Muffet
Wallace, Hattie
Waller, Lottie
Walls, Opal
Ware, Veta
Watson, Mary
Weathers, Dorothy
Webb, Jennie
Webb, Alta
Welsh, Nyanzia
Wesbrook, Roy
Wheeler, Nell
Westfall, Esther
White, Aimee
Whitham, Blanche
Wickoff, Julia
Wiley, Ivan
Williams, Mattie Kimberlin
Williams, Dave S.
Wilson, Carlos D.
Wilson, Grace
Wilson, Violet
Woolbert, Enid
Wolverton, Addie
Womack, A. L.
Wood, Ruby
Wood, Mabel

Zahn, Esther
Zion, J. E.
Zoldoske, Henry

THE ALUMNI

The following list of graduates of the College has been compiled in the office of the secretary of the Alumni Corporation.

The courses from which the alumni have received their degrees are indicated as follows:

I Agriculture
II Engineering
III General Science
IV Home Economics
V Science and Literature
VI Education
VII Commerce and Marketing

(Abercrombie) Rapp, Leona, IV, 1917, at home, 370 Arkansas Avenue, Fayetteville, Arkansas
Abercrombie, Russell T., I, 1916, 1137 West First Street ..... Oklahoma City
Abernethy, Eunice, VI, 1916, Teacher ..... Hollis
Abernethy, Oscar, V, 1915 ..... Hollis
(Abernethy) Groves, Ora, IV, 1915, Box 275, at home ..... Hollis
Acheson, Margaret, VI, 1912, Christian Science Practitioner ..... Jacksonville, Florida
Adams, Arthur W., I, 1896, Real Estate Agent, 1116 Alston Avenue, ... Fort Worth, Texas
Adams, J. Homer, I, 1896, Oil Properties Broker, 2933 Hemphill Street ..... Fort Worth, Texas
(Adams) Short, Myrtle, IV, 1913, at home, D. Street, N. W. ..... Ardmore
(Adams) Weaver, Kathryn, IV, 1916, at home, 5424 Lydia Avenue ..... Kansas City, Missouri
(Aikins) McKeeman, Evelyn, IV, 1911, at home ..... Geneva, Nebraska
Akogi, Yutaka, I, 1912, 122 Kahomachi ..... Hiroshima, Japan
Albert, H. R., V, 1913, Superintendent of Schools ..... Keifer
Alexander, Nell, IV, 1919 ..... McKenzie, Tennessee
Allen, H. S., II, 1910 ..... Great Bend, Kansas
Anderson, Albert A., II, 1916, Salesman, Ludwig Hommel & Company, or 1645 East 84th Street ..... Cleveland, Ohio
Anderson, A. B., II, 1908, A. T. & S. F. Railway, or Box 82 ..... Canadian, Texas
Anderson, Andy, VI, 1920, Coach, Third District Agricultural School ..... Magnolia, Arkansas
Anderson, A. W., III, 1900, Lawyer ..... Woodward
Anderson, P. K., II, 808 1-2 Walker Avenue ..... Houston, Texas
*Anderson, R. E., V, 1908
Anderson, R. L., I, 1917, 1124 Husband Street ..... Stillwater
Andrews, Carl S., I, 1916, County Agent, Box 142 ..... Boise City
Andrews, Myron, I, 1916, Associate Professor of Farm Economics, Agricultural College, Miss
Andrews, Maude, IV, 1915, Home Demonstration Agent, Box 585 ..... Madill
Arabajian, H. K., I, 1915, Route A, Box 78, Maderia, California, or Chamber of Commerce ..... Yettem, California
Armstrong, Ola, IV, 1919, Box 191 ..... Hobart
Atkinson, Mary B., III, 1906, Public Stenographer, 832 Morgan Building ..... Portland, Oregon
Aycock, Thomas, VII, 1918, Box 273 ..... Wilson

Baade, H. J., III, 1910, Court House ..... Napa, California
Baird, R. O., III, 1908 ..... Lavina, Minnesota
Baker, DeLarue, V, 1914, Oil Well Contractor, 801 North Cheyenne ..... Tulsa
Baldwin, Myrtie, VI, 1920, Teacher in High School ..... Anadarko
Baldwin, Mary Bernice, IV, 1920, Teacher in High School ..... Anadarko
Ball, H. L., II, 1905 Salesman, Western Electric and Manufacturing Co., Rochester, N. Y.
(Bandel) Kite, Maude, IV, 1915, at home, 1444 West Thirty-Fourth Street, Oklahoma City
Bandelier, George, II, 1918, Assistant to County Engineer ..... Enid
Barnes, Henry Dale, I, 1914, Livestock Farmer ..... Bamer
(Barnes) Heston, Hazel, IV, 1918, at home, Route 4, or J. A. Heston ..... Fayetteville, Arkansas
Bartlett, Alice, VI, 1917, Student in University ..... University Park, Iowa
Bartlett, E. C., I, 1912, Pine Grove Ranch, Box G ..... Rye ,Colorado

Bartlett, Edward E., V, 1912, Treasurer, Bartlett & Collins Glass Company ..... Sapulpa
(Bass) Nelson, Lillian, VI, 1915, at home, Box 378 ..... East Lansing, Michigan
Bauman, Charles V, 1916, Farmer ..... Bessie
Beard, Fred J., I, 1919, Instructor in Animal Husbandry, O. A. M. C. ..... Stillwater
(Beatty) Miller, Helen, VI, 1920, 407 Sedwick Building ..... Kichita, Kansas
Beck, Paul V., V, 1916 ..... .
Beck, William, I, 1920 ..... Hunter
Bellis, Charles A., I, 1919, Extension Work, Box 288 ..... Pecos, Texas
(Bellis) Means, Ida, V, 1914, at home, 1520 East Third Street ..... Tu'sa
Bennett, Paul, II, 1908 ..... Stillwater
Bentley, M. R., II, 1909, Farm Engineering, Extension Division ..... College Station, Texas
Berry, Roger, I, 1918, County Agent, 501 North Lee ..... Altus
Bever, F. Leo, II, 1919, Engineer, Box 1133 ..... Ponca City
(Bever) Harp, Hazel, IV, 1919, 110 West Central Avenue ..... Ponca City
Biggin, Dorothea, VI, 1916, Teacher in High School ..... Birmingham, Alabama
Bi'yeu, Floyd M., VII, 1919, 1519 Arapaho ..... Golden, Colorado
Bilyeu, R. I., V, 1905, Farmer, Box 25 ..... Owasso
Black, James A., I, 1917, Cooperative Livestock Development Association ..... Oklahoma City
Blackwell, Carl P., V., 1911, Head of Agronomy Department, State Agricultural College, Box 10 ..... Clemson College, S. C.
Bloom, Char'es B., II, 1913, 610 West Fourth ..... Tulsa
Blue, True C., II, 1909, Manager, Bagnall & Hillis Company, or No. 42 Settlement ..... Yokohama, Japan
Blue, Fred R., II, 1905, Road Commissioner ..... Ingersoll
Boley, A. L., II, 1908
Bonar, H. T., II, 1913, 1811 Pendleton ..... Kansas City, Missouri
(Bonar) Frank, Mollie, VI, 1916, Box D, at home ..... Oilton
Bonham, Wendall, I, 1920, Farmer ..... Keota
Bonnette, H. E., II, 1911, 1308 Dewey Avenue ..... Bartlesville
Booth, John, I, 1917, Box 408 ..... Caddo
*Boutin, H. C., II, 1909
Bowers, Charles, I, 1913, Hampshire Registry Board ..... Peoria, Illinois
Bowers, George W., III, 1897, Railway Conductor, St. Louis and Sante Fe R. R. ..... Enid
Bowers, R. L., III, 1904, Lawyer, 801 North Richardson ..... Roswell, New Mexico
(Boyd) Muncie Nina, VI, 1915, at home, 418 Husband Street ..... Stillwater
Boyd, Oran Cecil, I, 1916, Graduate Student, Cornell University ..... Ithaca, New York
Boydston, Ethel, IV 1915
(Braden) Robertson, Gertrude, III, 1906, at home ..... Sapulpa
(Bradwell) Newby, Ollie, V, 1909, Music Teacher ..... Gate
(Brandon) Lewis, Edna, IV, 1915, at home, West Ninth and Adams ..... Stillwater
Brannin, Louis, I, 1914, McFarlin Ranch ..... Inola
(Bras) Owens, Ruth, III, 1907, at home, 115 North Maple ..... Albuquerque, N. M.
(Breidenthal) Coppedge, Hazel, VI, 1915, at home ..... Cleveland, Kansas
Breuer, E. H., II, 1911, Manager, El Reno Foundry and Machine Company ..... El Reno
(Brian) DeMerritt, Naomi, IV, 1915, at home ..... Cushing
Bridges, J. W., VI, 1916, State Board of Vocational Education, Capitol Bldg, Oklahoma City
Briggs, Glen N., I, 1916, Assistant Professor of Agronomy, O. A. M. C. ..... Stillwater
Bright, Merydith, I, 1919 ..... Hugo
Brisby, Cassie K., IV, 1915, Teacher in High School, Box 315 ..... Skiatook
Briscoe, Jack, II, 1917, 705 I Street ..... Perry
Brock, Mary D., VI, 1920, Teacher in High School ..... Prague
Brodell, A. C., VI, 1914, Superintendent of Schools ..... Skedee
Brodell, A. P., I, 1917, Land Classification, U. S. Geological Survey ..... Washington, D. C.
Broemel, Agnes, VI, 1915, 157 Augusta Avenue ..... De Kalb, Illinois
(Brooke) Schreiber, Hazel, V, 1914, at home, 514 North Lake Street ..... Madison, Wisconsin
Broom, Rose, V, 1905, Teacher ..... Howe
Brower, Bel e, IV, 1919, Teacher ..... Eufaula
Brower, Maude, IV, 1918, Teacher, Box 286 ..... Henryetta
(Brower) Meeks, Laura, IV, 1916, at home, 218 South Cleveland ..... Cushing
Brown, Charles, III, 1906, Bookkeeper-Truck Gardener ..... East Lansing, Michigan
Brown, C. B., I, 1913, 1320 East Fifth Street ..... Tucson, Arizona
Brown, Mary E., VI, 1917, Teacher, R. F. D. 2 ..... Cushing
Brown, O. C., II, 1914, 5737 Kenwood Avenue ..... Chicago, Illinois
Brown, J. J., II, 1903, General Electric Company ..... Manila, P. I.
Browning, J. M., I, 1915, Agriculturist, Box 659 ..... Riverside, Illinois
Brumbaugh, Norma May, IV, 1917, Ass't. State Home Demonstration Agent ..... Stillwater
Bryant, Ray M., I, 1917, Assistant County Agent ..... Frederick
Buchanan, W. A., I, 1912, County Agricultural Agent, 12 North Seventh, Marshalltown, Iowa
Buddrus, Edmond I, 1917 ..... Salt Creek, Wyoming
Buffington, Edith, VI, 1918, Stenographer, O. A. M. C. ..... Stillwater
(Buffington) McBride, Betha, IV, 1912, Teacher in High School, or 317 Duck Street, Stillwater
Bullen, Dr. C. Bernard, III, 1912, No. 4, West Fifteenth Street ..... New York City
Bullen, Clarence K., II, 1909, Bullen Lumber Company ..... Stillwater
Bullock, N. P., Jr., III, 1899, Mail Carrier ..... Pauls Valley
Burke, Elizabeth IV, 1913, Sinclair Oil Company, or 1524 East Second Street ..... Tulsa
Burke, M. P., II, 1909, Texas Oil Company ..... Wichita Falls, Texas
Burlison, William L., I, 1905, Head of Agronomy Department, University of Illinois ..... Urbana, Illinois

*Deceased.

Burke, W. J., II, 1911, First Lieutenant, 39th C. A. C. ..... Camp Jackson, S. C.
*Burnett, Roy E., III, 1905
Burnham, Alice, IV, 1919, at home, 131 East Fourth Avenue ..... Oklahoma City
Butler, Joe B., II, 1915, Assistant Professor of Civil Engineering, Missouri School of Mines ..... Rollo, Missouri

Caldwell, Lenore, IV, 1920 ..... Stillwater
Caldwell, Mabel, VI, 1918, Extension Division, K. S. A. C. ..... Manhattan, Kansas
Caldwell, Virgil E., V, 1917, Bacteriology Department, K. S. A. C. ..... Manhattan, Kansas
Camp, W. E., II, 1910, Agent, General Electric Company ..... Sacremento, California
Campbell, Jeff C., VII, 1917
Campbell, Milton B., I, 1914, Stockman, 1428 Kansas Avenue ..... Chickasha
Campbell, Rhea, VI, 1915, 411 North Ross, Laboratory of Clinical Pathology ..... Guthrie
(Campbell) Santee, Viola, IV, 1913, at home, 701 Majestic Building ..... Oklahoma City
Canfield, Jesse J., V, 1916, 2707 Boone Street ..... Ames, Iowa
Canfield, Ralph, V, 1920 ..... Yale
Cantwell, Carolyn, V, 1919, 703 East Warner, Teacher in High School ..... Guthrie
Cantwell, J. W., Jr., V, 1920, Instructor, Oklahoma Military Academy ..... Claremore
Carlson, Alice, IV, 1919, at home, 319 West Wabash ..... Enid
Carlson, Floyd B., I, 1918, Farmer, R. F. D. No. 2 ..... Meno
Carlson, Grace, IV, 1917, Teacher ..... Cherokee
Carlton, Oscar, VII, 1920, Salesman, National Biscuit Company, or Y. M. C. A., Oklahoma City
Carlyle, Kathleene, IV, 1917, 1931 Tenth Street ..... West Calgary, Alberta, Canada
Carney, Cora Martha, IV, 1914, Teacher, 128 West Seventh Street ..... Rushville, Indiana
Carpenter, Charles L., I, 1915, Farmer ..... Bridgeport
Carson, Ross L., III, 1907, Hardware Business, Box 126 ..... Perkins
Carson, Susie, III, 1912, Hardware Business ..... Perkins
Carter, E. O., II, 1916, S. W. Bell Telephone and Telegraph Company ..... Oklahoma City
Carter, W. C., II, 1911, Corner of Wallace & Grand River, Care N. W. Station, Detroit, Mich.
Carter, Zaida, IV, 1920, Graduate Student, O. A. M. C. ..... Stillwater
Cass, E. R., I, 1915, 917 South Jackson ..... Tulsa
Cass, Maude, IV, 1919, 915 South Jackson, Teacher ..... Tulsa
(Cassali) Peck, Louise, IV, at home ..... Stillwater
(Castle) Vance, Lois, IV, 1918, at home ..... Kiowa, Kansas
(Caton) Younge, Orpha, V, 1909, Indian Agency, Certified Copy Clerk ..... Muskogee
Caudell, A. N., III, 1897, U. S. National Museum ..... Washington, D. C.
Chandler, Emma V, 1906, at home, 617 Duck Street ..... Stillwater
Chandler, Fred F., II, 1904, 827 Market Street ..... Bethlehem, Pennsylvania
Chase, Martin Ward, I, 1920, Ass't. State Boys' Club Agent ..... Stillwater
(Chester) Goodwin, Bertha, III, 1907, at home, 2019 Edmond Street ..... St. Joseph, Missouri
Chewning, W. P., I, 1917, Smith-Hughes Teacher ..... Stigler
(Chivington) Tyson, Anna, IV, 1911, at home ..... Welch
Choate, George R., I, 1915, Box 283 ..... North McAlester
Clark, Arthur C., II, 1906, 540 Nebraska Avenue ..... Long Beach, California
Clark, C. L., V, 1913, Route 6, Box 47-A ..... Fort Worth, Texas
Clark, F. J., III, 1908, 318 South Brinsball ..... St. Paul, Minnesota
Clark, J. T., III, 1898, Farmer ..... Puerto Princessa, Palawan, Philipine Islands
Clausen, B. O., II, 1912, Celluoid Zapon Company ..... Philadelphia, Pennsylvania
Clausen, Mrs. D. C., VI, 1912, University of North Dakota ..... Bismark, North Dakota
Clausen, Elsie, VI, 1916, Bookkeeper, 323 West Seventh ..... Oklahoma City
Clausen, Lillian, VI, 1918
Clausen, Nellie C., IV, 1914, Walter Reed Hospital ..... Washington, D. C.
Clausen, R. E., I, 1910, University of California ..... Berkeley, California
Clay, Henry, V, 1918 ..... Ninnekah
Clemmer, H. J., I, 1915, Field Station, U. S. Experiment Station ..... Dalhart, Texas
Cloukey, H. U., III, 1910, 1507 Astor Trust Bldg., 501 Fifth Ave. ..... New York City, N. Y.
Cobb, A. L., II, 1913, 193 Broadway ..... Brooklyn, N. Y.
(Cobb)) Payne, Mary, IV, 1913, at home ..... Manhattan, Kansas
Coburn, Carrol, II, 1912, 3212 Gilbert Avenue ..... Cincinnati, Ohio
Cole, Frank III, 1908, Route 1 ..... Anaconda, Montana
Collier, T. L., VI, 1920, Teacher, High School ..... Oklahoma City
Collins, Blanche, VI, 1919, Teacher, Box 514 ..... Sand Springs
Collins, Mrs. Nannie, IV, 1920, Ass't. State Home Demonstration Agent ..... Stillwater
*Comstock, Frank, II, 1912
Comstock, Harry, II, 1905, General Superintendent ..... Denver, Colorado
Conklin, Harry E., II, 1914, Westinghouse Elec. & Mfg. Co., or 215 1-2 West First Street ..... Oklahoma City
Conn, Julian, II, 1915, County Engineer, Box 12 ..... Dustin
Connell, William B., V, 1912, 1803 Richardson ..... Dallas, Texas
Conner, W. A., I, 1917, 613 Continental Building ..... Oklahoma City
Conway, William T., I, 1910, State Club Leader ..... State College, New Mexico
Cook, Harold P., II, 1914, 1309 West Noble ..... Guthrie
Cooley, D. F., VI, 1916, Superintendent of Schools ..... Altus
Coppedge, William H., VII, 1920, Manual Training School, or 1116 Farnam St., Davenport, Iowa
Corbin, D. C., VI, 1919 ..... Yukon
Corbin, Bert O., II, 1916 ..... Altus
*(Cox) Fisher, Mary, IV, 1913
Correll, Lawrence E., I, 1919, Athletic Coach ..... Chilocco

*Deceased.

Correll, V. I., V, 1912, Teacher, High School ..... Sand Springs
Cowan, J. P., VI, 1920, Superintendent of Schools ..... Bay St. Louis, Mississippi
Crawford, C. W., III, 1909, Chemist, Bureau of Chemistry, U. S. D. A., Washington, D. C.
Crawford, G. L., I, 1915, County Agent ..... Spur, Texas
Crocker, Fred. V, 1912, Drawer F, Hospital ..... Fairfield, Alabama
(Cummings) Hamilton, Maxie, VI, 1916
Cummins, Ina, VI, 1919, at home, Box 72 ..... Yale
Cunningham, Katherine, VI, 1917, Teacher ..... Pawnee
Curnutt, Minnie, IV, 1920, Teacher ..... Beggs

Dale, Ernest B., II, 1914, ... Headrick
Darlow, A. E., I, 1919, Instructor in Animal Husbandry, O. A. M. C. ..... Stillwater
Davidson, Frances, VI, 1920, at home ..... Kiefer
(Davidson) Johnson, Lois, VI, 1918, at home, 113 Welch Street ..... Ames, Iowa
Davis, Alice, VI, 1920, Teacher of Mathematics, High School ..... Okemah
Davis, George E., II, 1916, Drawer F., Engineering and Construction Department,
Empire Gas Company ..... Eldorado, Kansas
Davis, R. N., I, 1911, University of Arizona, Dairy Department ..... Tucson, Arizona
DeBord, George G., V, 1914, 205 A. Street, S. E. ..... Washington, D. C.
Denton, Elizabeth, IV, 1916, Assistant Cashier, First National Bank ..... Skiatook
Denton, Esther, IV, 1917, Teacher ..... Newkirk
Denton, Mary Belle, IV, 1918, at home, Box 246 ..... Newkirk
(Dillon) Moorhouse, Lucille, V, 1917, at home, 2151 Sherman Avenue ..... Evanston, Illinois
Dickson, G. K., V, 1917, 4926 Washington Boulevard ..... St. Louis, Missouri
Dickson, W. Earl, II, 1912, Teacher in High School ..... Burbank, California
(Donart) Coffey, Cora, III, 1900, 326 East 14th ..... Oklahoma City
Donart, C. R., I, 1899, 1301 North Ellison ..... Oklahoma City
(Donart) Wilcoxen, Gladys, IV, 1914, at home ..... Maramec
Donchoo, Grace, IV, 1913, Teacher
*Dorman, Will S., II, 1911
Doldc, W. Earl, II, 1912, Teacher in High School ..... Woodlake, California
Doty, Harold, I, 1915, Creameryman, Dairy Department, O. A. M. C. ..... Stillwater
(Doty) Shallhammer, Lucille, IV, 1919 ..... Oklahoma City
Dougan, E. E., II, 1907, General Electric Company, or 70 Burbank Street ..... Pittsfield, Mass.
Douglas, Glen N., II, 1920, Superintendent of Cotton Warehouse ..... Guthrie
Douglas, Marion, VI, 1917, High School Principal ..... Yale
Drake, T. J., V, 1913, Real Estate Business ..... Lake Worth, Florida
Duck, F. E., I, 1896, Farmer, Route 3 ..... Stillwater
Duck, T. W., II, 1912
Drummond, A. A., I, 1915, North Price Avenue ..... Hominy
Drummond, Frederick Gentner, V, 1914, General Merchandise Business ..... Hominy
DeBois, Robert, III, 1919, Assistant Professor of Chemistry, O. A. M. C. ..... Stillwater
Dunlavy, Henry, I, 1919, Plant Breeder, Watson Seed Farms ..... Waxahachie, Texas
Durham, Sam B., I, 1904, Manager, Tippah Farms ..... Lexington, Mississippi
(Dysart) Teters, Minnie, III, 1899, at home, 1312 West 16th ..... Stillwater

Eads, Velma, IV, 1913, Head of Home Economics Department, High School ..... Okmulgee
Eberle, Dovie, III, 1906, Dietitian, Camp Kearny ..... Los Angeles, Calif.
Edson, E. Otis, I, 1915, Assistant Poultry Specialist, Extension Division ..... Stillwater
Elston, W. B., II, 1915, Care Curtis Motor Company, Garden City, L. I.,
..... Somewhere in South America
Emmons, Clarence, II, 1918, Engineer, Box 4, Route 1 ..... Vinita
Emmons, Mrs. Clara, VI, 1917, Box 4, Route 1 ..... Vinita
(English) Lantz, Maude, III, 1907, at home, Box 423 ..... Orland, California
English, William L., I, 1905, Frisco Agriculturist, Room 438, Frisco Bldg.,
St. Louis, Mo., and Fruit Grower ..... Bentonville, Arkansas
Epperson, Jesse Harrison, V, 1914, Director of Bacteriological Laboratory, or
1202 Mangum Street ..... Durham, North Carolina
Evans, E. Ray, I, 1912, Holekamp Lumber Company, Old Orchard ..... St. Louis, Missouri
(Evans) Whittenberg, Ruth, IV, 1917, at home, 517 West Street ..... Stillwater

Fair, R. M., VI, 1917, R. F. D. No. 1, Box 144 ..... Marietta
Fansher, R. A., I, 1912, Registered Cattle Business ..... Edmond
Fansher, Ted, 1, 1913, Livestock Breeder ..... Edmond
Faulds, N. M., II, 1910, Truck Farmer, Route 1 ..... Clearwater, Florida
Fellows, Iris, VI, 1917, Teacher ..... Stillwater
Fellows, Keith R., II, 1915, County Engineer, Courthouse ..... Stillwater
Fellows, Reeda, IV, 1917, Nurse, Johns-Hopkins Hospital ..... Baltimore, Maryland
Fenema, Nick, I, 1915, Room 409, 204 Franklin Street ..... New York City
Fenema, Pete, I, 1920, Wholesale Ice Cream Works ..... Clinton
Fetzer, Dale, I, 1920, Student, K. S. A. C., or 1205 Kearney ..... Manhattan, Kansas
(Finch) Connell, Laura, IV, 1915, at home, 1803 Richardson Avenue ..... Dallas, Texas
Finnell, H. H., I, 1917, Agriculturist, Box 512 ..... Ravia
First, Fern, VI, 1916, Teacher
*Fish, Wayne, II, 1918
(Fisher) Hinkle, Florence, IV, 1917, at home, 602 Duncan Street ..... Stillwater
Fisher, J. G., II, 1910, Manager of Plantation ..... Tempa, Arizona
Fisher, John M., II, 1915, Hoffman Building ..... Ford City Pa.

*Deceased.

(Fisher) Marx, Anna, IV, 1915, at home ..... Pawnee
Fisher, Teague, I, 1920, Ford Garage ..... Clinton
Flower, A. W., III, 1920, Federal Glue & Paste Co., 220 West Ontario ..... Chciago, Illinois
Folk, John, II, 1919, 93 Eaton Street ..... Bridgeport, Conn.
Ford, A. G., III, 1898, Proprietor and Manager, Insurance & Loans ..... Muskogee
Ford, W. W., II, 1913, Teacher in High School ..... Chickasha
Forrester, C. T., I, 1917, Box 2 ..... Stratford
Forrester, D. R., I, 1913 ..... Osceola, Ark.
Forrester, Nellie, IV, 1919, at home, or Box 215 ..... Stuart
Forrester, Witt E., I, 1915 Box 610 ..... Winfield, Kansas
Forsyth, Fred, II, 1917, Oil Fields ..... Dewey
Forsyth, Lt. Andrew, I, 1917, 6th Division ..... Ft. Ogiethorpe, Georgia
Foster, Faye F., I, 1915 ..... Perry
(Foster) Rogers, Nell, I, 1914, at home, R. F. D. ..... Gage
*Francis, Victor, II, 1908
Freeman, Ray F., I, 1916, Stock Farmer ..... Fort Worth, Texas
French, Earl R., I, 1920, Redpath Chautauqua, Kimbell Bldg. ..... Chicago, Illinois
(French) Hill, Mattie, IV, 1917, at home ..... Des Moines, Iowa
Frenzel, H. H., II, 1912, 5510 Ingleside Avenue ..... Chicago, Illinois
(Freiday) Barnett, Almira, IV, 1912, at home, 4178 Winona Court ..... Denver, Colorado
Freiday, Gladys, IV, 1917, Teacher ..... Springer, New Mexico
Friedemann, Otto, V, 1920, Box 331 ..... East Lansing, Michigan
Friedemann, Theodore, V, 1915, Ass't. Chemist, Experiment Station ..... Columbia, Missouri
Friedemann, William G., V, 1913, Ass't. Chemist, Experiment Station ..... Stillwater
Frier, C. H., II, 1911
Frost, John, H., II, 1918, Drawer F ..... Bartlesville
Fry, Curtis, I, 1920, R. R. "A" ..... Thomas
Funda, F. P., II, 1910, Rock Island Railroad Company ..... Little Rock, Arkansas

Gaasch, Glen, II, 1909, Box 476 ..... Grandfield
Gager, E. H., II, 1908, Room 524, 72 West Adams, or 1318 Eddy Street ..... Chicago, Illinois
Gallagher, E. C., II, 1909, Director of Athletics and Physical Education for Men, O. A. M. C. ..... Stillwater
Galyon, E. O., II, 1911, 5764 Goodfellow Avenue, or 1906 Pine Street, Service Department, Westinghouse Electric Company ..... St. Louis, Missouri
Gammie, R. J., II, 1910, Ass't. Engineer, Texas & Pacific R. R. Co. ..... Ft. Worth, Texas
Gardner, Frank, II, 1911, 1008 Texas Avenue ..... Houston, Texas
Garlock, Harry, I, 1920, Extension Division, Missouri University ..... Columbia, Missouri
Garrett, E. L., VI, 1915, Box 176, County Agent ..... Coldwater, Kansas
Gaudian, Will, II, 1912, Engineer, Box 475 ..... Balboa Heights, Canal Zone
Gay, Thurman, VII, 1920, ... Pawhuska
Gaymon, Sue, IV, 1920, High School Teacher, 322 N. Hightower ..... Altus
Gentry, Irma, VII, 1920 ..... Pawnee
Geren, Louis, I, 1917
Getgey, John H., V, 1914, Box 1484 ..... Tulsa
Gilbert, J. C., I, 1904, Acting Director, Bureau of Markets ..... Harrisburg, Pennsylvania
Gilbert, N. T., II, 1898, Producers State Bank ..... Tulsa
Giles, O. A., VI, 1919, Smith-Hughes Agricultural Teacher ..... Sand Springs
Gilliam, Winnie, IV, 1919, Box 90 ..... Carnev
Gilmer, Thomas P., II, 1913, City Electrician ..... Clinton
Glendenning, George S., II, 1920, City Engineer ..... Enid
Gloeckner, G. L., II, 1917
Goe, Walter B., VI, 1918, Smith-Hughes Teacher ..... Hillsdale
Goff, T. T., III, 1900, Teacher in State Normal School ..... Whitewater, Wisconsin
Gollehon, Floyd, II, 1910, Box 211 ..... Cherokee
Gotry, Herschel U., V, 1913, Farmer-Stockman ..... Amber
(Goold) Fleener, Christine, IV, 1919, at home, 1320 Cherry Street ..... Kansas City, Missouri
Goom, Austin, V, 1912, Banker, Farmers State Bank ..... Ripley
Gordon, Frances Mae, IV, 1916, High School Teacher, Box 452 ..... Haskell
(Gordon) Walters, Julia, VI, 1916, at home ..... McComb
Gougler, F. A., I, 1909, County Agent, 2007 Elm Street ..... Quincy, Illinois
Graham, Douglas S., V, 1914, Erk Fire-Brick Company ..... Saint Marys, Pennsylvania
Graham, Earl E., I, 1915, Secondary Agricultural School ..... Magnolia, Arkansas
Graham, Milton C., VI, 1916, Care Grove & Hewitt Plantation ..... Mariana, Arkansas
Graham, Quentin, II, 1914, Westinghouse Elec. & Mfg. Co., Power Engineering Department ..... East Pittsburgh, Pennsylvania
Granberry, Carl Ellis, VI, 1914
Gravelle, E. E., II, 1913, 502 Railway Exchange Bldg. ..... Muskogee
Gray, Earl, II, 1920, 527 North Avenue ..... Wilkinsburg, Pennsylvania
Gray, Julia, IV, 1918, Teacher, Box 72 ..... Latham, Kansas
(Gray) Ward, Nina, IV, 1916, Fourth and Oklahoma Streets ..... Woodward
(Gray) Wheeler, Ruth, V, 1917, at home, 920 North Main Street ..... Blackwell
Gray, William F., I, 1912, County Agent ..... Newkirk
Gray, Willis N., II, 1917 ..... St. Paul, Minnesota
Green, William J., I, 1916, U. S. Department of Agriculture, Experiment Station ..... Agana, Island of Guam
Gregory, H. W., I, 1912, 416 Harvey Avenue ..... West Lafayette, Indiana
Greiner, E. M., III, 1899, Chemist ..... New Bedford, Pennsylvania

*Deceased.

Griggs, Oscar C., VI, 1915, 43 North Wheeling Avenue ..... Tulsa
Gulick, H. W., II, 1903, Metallurgical Engineer, Moore-Jones Brass Metal Co, St. Louis, Mo.
Guynn, N. P., II, 1904, Chief Draftsman, Illinois Steel Co. ,or 7407 Euclid Avenue, Chicago, Ill.

(Hagar) Groves, Hyral, V, 1910, at home, 819 Metomen ..... Ripon, Wisconsin
Hagar, William Edgar, I, 1914, Smith-Hughes Teacher ..... Kiefer
(Hale) Cooley, Fannie, VI, 1917, at home ..... Altus
Hall, Ethel Faye, VI, 1914, Teacher
Hall, Georgiana, IV, 1920, Domestic Science Teacher ..... Ryan
Hall, Roy V., II, 1911, Farmer ..... Perkins
Ham, Joe, II, 1919, Empire Gas and Fuel Company ..... El Dorado, Kansas
Hamblin, Clyde, II, 1904, 3720 New Hampshire Avenue ..... Washington, D. C.
(Hamilton) Cross, Fern, V, 1913, 306 Ridgeway Street ..... Mount Holly, New Jersey
Hamilton, F. C., V, 1910, Box 202 ..... La Junta, Colorado
Hamilton, J. Homer, V, 1910
Hamon, C. A., II, 1910, Electrical Engineer, Westinghouse Elec. & Mfg. Co.,
or 89 H Street ..... Salt Lake City, Utah
Hamon, Fannie, V, 1908, at home
*Hamon, R. J., V, 1911
Hancock, A. Vernon, II, 1907, Manager, Southwestern General Electric Office,
Insurance Building ..... Oklahoma City
(Hancock) Hess, Joy B., IV, 1909 ..... ——— Florida
Hann, F. R., Jr., II, 1912
Hanna, O'Lula, VI, 1919 ..... Braymer, Missouri
(Hannifan) Vance, Edna, IV, 1914, at home ..... Kiowa, Kansas
Harnden, E. E., V, 1912 ..... Manhattan, Kansas
Harnden, F. D., VI, 1914, 515 Lewis Street ..... Stillwater
Harnden, Millard G., I, 1917, 1220 Oregon ..... Chickasha
(Harris) Burns, June Inez, VI, 1913, at home, Box 13 ..... Roche Harbor, Washington
Harris, Motier, VI, 1917, Teacher
Harrison, L. D., V, 1913, 133 East 14th Street ..... Oklahoma City
Hart, Haden, I, 1913, Stock Farmer ..... Spearman, Texas
Hartenbower, A. C., I, 1905, Extension Division ..... Manhattan, Kansas
Hartman, T. J., III, 1898, Vice President, Producers State Bank ..... Tulsa
Hartshorne, E. C., II, 1912, Box 544, Balboa Substation ..... Balboa, Canal Zone
Harvey, C. F., II, 1911 ..... Stillwater
Harvey, J. W., II, 1913, 1727 P. Street, N. W. ..... Washington, D. C.
Harvey, Ruth, VI, 1916, Teacher ..... Fairfax
Hastings, Alice, IV, 1905, Domestic Science Teacher, 417 Husband Street ..... Stillwater
Haston, Clyde, I, 1920, Box 140 ..... Webber Falls
Hatch, Hazel, V, 1916, Missionary (Care Route 3, Enid) ..... Korea, China
Hatch, Thomas J., I, 1920, Route 3 ..... Enid
Havenstrite, Ralph W., I, 1915 ..... Lovell
Hayes, Clara, VI, 1916, Teacher in High School ..... Enid
Hayes, Philip H., VI, 1917, Box 124 ..... Agricultural College, Miss.
Haymes, Winton R., I, 1917, Silver Crown Mining Company, Box 315 ..... Garber
Hays, Frank A., I, 1908, Agricultural Experiment Station ..... Laramie, Wyoming
Hays, Glen G., VI, 1915 ..... Utica, Kansas
Hedger, H. R., I, 1913, Box 541 ..... Idabel
Heilman, Paul L., VI, 1916, Box 81, Superintendent of Schools ..... Afton
Helmer, Richard, II, 1917 ..... Gotebo
Hemphill, Ora L., II, 1908, 2500 West 14th Street ..... Little Rock, Arkansas
Henderson, Georgia, VI, 1916, Teacher, Box 633 ..... Warren, Arizona
Hendrickson, Elmo, I, 1916, Farming ..... Boynton
Henson, E. Ray, I, 1920, County Agent, Court House ..... Shawnee
Henson, Helen Hoskinson, IV, 1920, at home ..... Shawnee
Henson, Ethel, IV, 1915, Teacher
(Herndon) Herron, Maye, IV, 1914, at home, Box 48 ..... Idabel
Herrick, H. C., II, 1912, Manager, Kansas Truck and Motor Company ..... Wichita, Kansas
Herron, L. G., I, 1913, County Agent, Box 48 ..... Idabel
Hertzler, Joy, VI, 1919, R. F. D. 3 ..... Aline
Heston, Adrian, II, 1915, Jacobs Hotel ..... Tulsa
Heston, Lucille, VI 1916, Teacher, Box 191 ..... Devol
(Hewett) Conway, Norma, IV, 1916, at home ..... Ranger, Texas
Hewett, Paul M., I, 1915, Instructor, Route 2 ..... Little Falls, Minnesota
Hiet, M. E., II, 1912, County Engineer ..... Nowata
(Hiet) Wiley, Sadie, IV, 1915, at home, 522 North Broadway ..... Guthrie
Hildebrand, Eric B., I, 1918, Route 5 ..... Chickasha
Hildebrand, L. E., II, 1910
Hildebrand, Mrs. E. B., IV, 1918, Route 5 ..... Chickasha
Hilgenburg, L. W., VI, 1915, 605 West 10th Street ..... Cisco, Texas
(Hill) Bartlett, Vera, VI, 1912, at home, Pine Grove Ranch, Box G ..... Rye, Colorado
(Hill) Wilber, Ruth, IV, 1917, at home, 303 West Street ..... Stillwater
Hines, G. E., II, 1905, Chief Engineer, Ullen Contracting Company ..... Suffolk, Virginia
Hinkel, John, V, 1917, The Daily Press ..... Stillwater
*Hirschi, Fred, II, 1918
Hirzel, Homer, VII, 1920, 504 East Noble ..... Guthrie
(Hitchcock) Corbin, Edith, VI, 1917, Teacher ..... Altus
Hitchcock, Ethel, VI, 1917, Teacher ..... West Plains, Missouri

*Deceased.

Hobbs, Hugh, II, 1912, 5260 Vernon Avenue ..... St. Louis, Missouri
Hogle, Ellen, IV, 1919, Teacher of Home Economics, Cameron State School ..... Lawton
Hoke, Charlie E., I, 1907, Cashier, First National Bank ..... Stillwater
Hoke, George, V, 1911, Hoke & Hoke Investment Company ..... Stillwater
(Hoke) Hart, Rhoda Charlotte, IV, 1914, at home ..... Spearman, Texas
Hoke, Harry G., II, 1907, 1030 East 12th Street, or Krantz Mfg. Co. ..... Brooklyn, N. Y.
Hoke, Jess W., VII, 1920, Student, University of Oklahoma ..... Norman
Hoke, Mac, I, 1912, Box 811 ..... Pendleton, Oregon
Hoke, Roy, I, 1917, Hoke & Hoke Real Estate Company ..... Stillwater
(Holford) Talbot, Ina, VI, 1914, at home, 1329 Manheim Place ..... Kansas City, Missouri
(Hol'eman) Zeigler, Mathilda Gertrude, IV, 1914, at home, 5918 Anderson Ave., Kansas City, Mo.
Holmes, D. L., V, 1908, Holmes Music Company ..... Stillwater
Holmes, O. W., I 1908, 4825 California Street ..... San Francisco, California
Holton, Pauline, IV, 1915, Teacher, 1212 North Leady ..... Pawhuska
Hoover, George W., III, 1903, Chemist, Room 1626 Transportation Bldg., U. S.
Food and Drug Laboratory ..... Chicago, Illinois
Hopkins, Blanche, IV, 1918, Teacher ..... Luther
Hopkins, Maude, IV, 1918, Teacher, Box 122 ..... Altus
Hopps, C. W., II, 1911
Horner, J. T., VII, 1916, 505 Journalism, Co'umbia University ..... New York City
Horton, Charlotte, V, 1915, Teacher ..... Morris
Horton, Earl, I, 1916, Box 353 ..... Homer, Louisiana
Hostetter, Eston, II, 1919, 207 Barnes Bldg. ..... Muskogee
Houck, Kathleen, IV, 1919, at home ..... Stillwater
(Houck) Stewart, Afton, VI, 1916, at home ..... Okmu'gee
House, R. M., II, 1903, Box 654 ..... Bristow
Houston, Mamie G., III, 1903 Teacher, Box 113 ..... Cambridge, Idaho
Howell, Carleton E., II, 1906, Electric Bond & Share Company, 71 Broadway,
New York City, or 8 Fernwood Place ..... Upper Montclair, New Jersey
Hubler, Willis A., III, 1910 ..... Fairfax
Hudd'eston, I. F., V, 1915, Box 584 ..... East Lansing, Michigan
Huffman, Louis D., V, 1914, 204 Masonic Building ..... Elyria, Ohio
Huffnagel, Charles, I, 1913
Hughes, Pauline, VI, 1917, Register of Deeds, Court House ..... Tulsa
(Hunt) Julian, Gertrude, III 1902, at home ..... Terlock, California
Hunter, Alice, IV, 1919, 803 College Avenue ..... Blackwell
Hurst, J. B., I, 1917 ..... Jefferson
Hurst, R. Bradford, III, 1901 ..... New York City
(Hurst) Suits, Nina B., III, 1903 ..... Jefferson

Isenberg, Olivia, IV, 1919, Teacher, Box 158 ..... Fairfax
Isenberg, Verna, VI, 1919, Teacher, Box 158 ..... Fairfax
Ives, E. E., II, 1917, H. L. Doherty & Company ..... Bartlesville
Ives, Fred H., I, 1910, Head Dept. of Agriculture, West Texas State Normal, Canyon, Texas
Jablow, Mrs. Charles, IV, 1915, Edgewood Acres, Newport & Elmore, Wilkinsburg, Pennsylvania
Jack, Eula, VI, 1917, Box 375, Teacher ..... Arapaho
Jackson, J. A., II, 1910, 300 Interstate Building ..... Kansas City, Missouri
Jackson, William Edgar, I, 1914
(Jacobs) Autry, Ethelyn, VI, 1915, at home, 2001 Home Avenue ..... Vancouver, Washington
Jacobs, A. W., I, 1913 ..... Aikin, Minnesota
Jacobs, Lewis A., I, 1913, County Agent ..... Anoka, Minnesota
James, Cornelia, VI, 1916, Manager, Rosemary Hat Shop ..... Stillwater
(James) Keeshan, He'en, IV, 1913, at home, 809 West 18th ..... Oklahoma City
(Janeway) Booze, Lenora, V, 1908, at home ..... Shawnee
Janeway, C. Harold, VII, 1918, Collinsville National Bank ..... Collinsville
Janeway, George M., III, 1902, Collinsville National Bank ..... Collinsville
(Janeway) Krepps, Helen, IV, 1912, at home, 238 Boylston Street ..... Watertown, Massachusetts
Jarrell, E. A., III, 1896, 1233 Main Street ..... Bakersfield, California
(Jarrell) Hartman, Mary, III, 1903, at home, 640 North Denver ..... Tulsa
Jeffords, Mary E., IV, 1914, 785 North Euclid Avenue ..... St. Louis, Missouri
Jeffords, Sherman, I, 1912, 1516 University Place ..... Co umbia, South Carolina
Jenkins, Henry E., VI, 1918, Jenkins Dry Goods Company ..... Frederick
Jessee, Walter B., I, 1911, Farmer, Box 24 ..... Supply
(Jewitt) Barnhardt, Kate A., III, 1901, at home, 2007 North Market ..... Wichita, Kansas
(Johnson) Crosby, Lucy, V, 1912, Teacher
Johnson, Harry E., VII, 1917, Farmers Union Exchange, 108 W. Main ..... Anadarko
Johnson, H. J., II, 1918, American Telephone & Telegraph Co. ..... St. Louis, Missouri
*Johnson, J. C., II, 1905
Johnson, Laura, VI 1912, Teacher, Box 127 ..... Henryetta
Johnson, Norma, V, 1909, Teacher, 401 North Seventh ..... Clinton
Johnson, S. B., I, 1912, Box 322 ..... Montrose, Colorado
Jones, Caroline, IV, 1920, Box 474 ..... Carlsbad, New Mexico
Jones, C. Shelley, II, 1910
Jones, C. Vincent, III, 1902, Lawyer ..... Clay Center, Kansas
Jones, Daisy Ladine, IV, 1914, Deputy Court Clerk's Office, or 523 West Street, Stillwater
Jones, E. L., II, 1904, Electrical Engineer ..... San Jose, California
Jones, Fred L., V, 1917, Ass't. Cashier, State Bank of Commerce ..... Stillwater
(Jones) Kent, Eva, VI, 1914, at home ..... Ingalls

*Deceased.

Jones, Lloyd R., V, 1915, U. S. P. H. S. Hospital ..... Greenville, South Carolina
(Jones) Tuttle, Jeanne, VI, 1916, at home, 318 East Oakes ..... Cushing
Jordan, Charles Neal, VI, 1914, Metallurgical Chemist

Kane, Cora, IV, 1920, Teacher, High School ..... Drumright
Katz, Henrietta, VI, 1915, Teacher ..... Sapulpa
Katz, Sigmund, I, 1920 ..... Sapulpa
Keiffer, Roscoe, I, 1920, 639 Matthews Street ..... Fort Collins, Colorado
Keller, Floyd, V, 1917, 731 American National Bank Building ..... Oklahoma City
Kennon, William D., VI, 1914, County Agent ..... Alva
Kenny, Roy Washington, I, 1920, Assistant Coach, O. A. M. C. ..... Stillwater
Kenworthy, Chester, I, 1917, 1107 Fremont Street ..... Muskogee
Kenyon, Lucille, VI, 1915, Teacher, Box M ..... Cheyenne Wel's, Colorado
Kenyon, R. E., II, 1910, 815 Paloma Avenue ..... Oakland, California
Kenyon, R. S., II, 1903, 815 Paloma Avenue ..... Oakland, California
Kerr, R. H., III, 1904, United States Department of Agriculture ..... Hyattsville, Maryland
Keys, Alma, IV 1917 ..... Bowling Green, Ohio
Kezer, C. L., III, 1901, Principal, Secondary School, O. A. M. C. ..... Stillwater
Kibler, J. Byron, II, 1920, Instructor, Electrical Engineering, O. A. M. C. ..... Stillwater
Kidd, J. W., II, 1904, Professor of Engineering ..... El Paso, Texas
Kile, Eugene, VI, 1915, Superintendent of Schools, Box 225 ..... Jennings
Kilpatrick, Charles, I, 1917 ..... Jet
Kilpatrick, Earl, I, 1912, Box 231 ..... Marianna, Arkansas
(Kilpatrick) Gregory, May, IV, 1914, at home, 416 Harvey Avenue ..... Lafayette, Indiana
(Kilpatrick) Newton, Maude, IV, 1919, at home, 423 1-2 West Street ..... Stillwater
Kimbell, James Albert, I, 1917, 609 Arlington ..... Lawton
Kinder, W. E., III, 1903, 1641 South Wichita Street ..... Wichita, Kansas
King, Beverly D., II, 1910, Engineer and Surveyor ..... Wharton, Texas
King, Nancy Ann, IV, 1920, Route 3 ..... Enid
(Kirkpatrick) Anderson, Victoria, V, 1910, at home, Box 182 ..... American Falls, Idaho
(Kirkpatrick) Benson, Cecil, IV, 1909, Student, Lock Box 10 ..... Fairfield, California
Kirkpatrick, Katie C., V, 1911, Teacher, 108 East Washington ..... Guthrie
Knauss, E. J., I, 1905, 4807 East Twenty-Third Street ..... Kansas City, Missouri
(Knight) Brahaney, Lillian, VI, 1917, Box 126 ..... Ranger, Texas
Knight, Eugene, I, 1919 ..... Ninnekah
Knoblock, Cecil C., V, 1915, Knoblock-Wood Laboratories, P. O. Box 576 ..... Tulsa
Knoblock, Fred L., II, 1912, Knoblock-Wood Laboratories, P. O. Box 576 ..... Tulsa
Kolshorn, Agnes, V, 1913, College ..... Columbus, Mississippi
Kooken, E. Ralph, I, 1910, 202 Exchange Building ..... Bellingham, Washington
(Kraemer) Edson, Marguerite, VI, 1915, at home, 121 Knoblock ..... Stillwater
Krall, John A., I, 1913, County Agent ..... Manchester, Iowa
Kratka, Ralph, III, 1902, 711 East Fifteenth Street ..... Kansas City, Missouri
Krepps, Samuel J., II, 1914, Ward Bakery Co., or 238 Boyston Street, Watertown, Massachusetts
Krisher, Sherman, I, 1918, Manager, Ford Garage ..... Stillwater
Krone, Floy C., VI, 1916, Box 103 ..... Sweethome, Oregon
Krone, Jessie, IV, 1918, Box 13 ..... Marietta, Minnesota

(Lahman) Simank, Ruth, V, 1914, 1859 East 97th, Suite 11 ..... Cleveland, Ohio
Lahman, Wilbur L., III, 1909, Lahman Ice & Coal Plant ..... Stillwater
Lahr, Herbert, I, 1920, Box 36 ..... Hunter
Lane, Frank P., I, 1913, County Agent Leader, University of Wyoming ..... Laramie, Wyoming
Lantz, A. G., II, 1907, Box 423, Engineer ..... Orland, California
Lantz, C. R., II, 1907, Box 41, Engineering ..... Garibaldi, Oregon
Larner, Ray Albert, II, 1920, 211 Seward Place ..... Schenectady, New York
Lauderdale, Ruby, V, 1918, Instructor in Veterinary Medicine, O. A. M. C. ..... Stillwater
Laughlin, Mary, IV, 1919, Teacher in High School ..... Lamont
Leichti, H. S., II, 1911
Leslie, Lewis, V, 1918 ..... Blackwell
Letteer, C. R., I, 1908, 1023 Bixby Avenue, S. W. ..... Ardmore
Lewis, Arthur, III, 1901, Ass't State Entomologist ..... Atlanta, Georgia
Lewis, Carrie, III, 1905, Manager, Oil Company, Box 556 ..... Enid
Lewis, Clarence W., II, 1916, 8421 Apricot Street ..... New Orleans, Louisiana
Lewis, E. G., I, 1896, Banker and Oil Broker, Care Liberty National Bank, or
Lewis, Inez, IV, 1919, Home Economics Instructor ..... Waurika
(Lewis) Johnson, Myrtle, IV, 1916, at home, Box 322 ..... Montrose, Colorado
1631 Cheyenne ..... Tulsa
Lincoln, Henry J., II, 1908, Ass't. Supt. A. T. & S. F., or 5531 Drexel Avenue,
Hyde Park Station ..... Chicago, Illinois
Lindsay, R. V., II, 1908, Farmer ..... Kingfisher
Long, Amy, VI, 1918, South Hall, Friends University ..... Wichita, Kansas
Loomis, Alden H., I, 1916 ..... Lahoma
(Loosey) Barnes, Portia M., IV, 1913, at home, Care Baca Grant ..... Seligman, Arizona
Lovell, Clemen M., II, 1916, 4562 Park View Place ..... St. Louis, Missouri
Lovell, Thomas J., II, 1912, 165 North Toluca ..... Los Angeles, California
Lovett, A. E., I, 1904, State Agriculturist and Agent, or 700 Smith Street, Ft. Collins, Colorado
Lovette, A. L., I, 1908, Oregon Agricultural College, Entomologist ..... Corvallis, Oregon
Lowery, Philip H., I, 1916, Ass't. State Boys' Club Agent ..... Stillwater
Lowman, E. F., V, 1912, Route 2 ..... Billings
Lowry, Chester Hiram, III, 1902, Attorney-at-Law, P. O. Drawer 338 ..... Stillwater
Lowry, Fern, V, 1916, Psychologist, Girls' Industrial Home, Box 220 ..... Oklahoma City

(Lowry) McKee, Theo, III, 1906, Peck's Book Store, or 304 East Ninth ..... Stillwater
(Lowry) Utt, Ethel, IV, 1913, at home, 513 East End Avenue ..... Pittsburgh, Pennsylvania
Lynch, H. W., II, 1912, Substation Operator, Commonwealth-Edison Co. ..... Chicago, Illinois

McArthur, C. L., III, 1911, Dairy Bacteriologist, Bureau of Animal Husbandry, Washington, D. C.
McBride, Elmer, VI, 1920, Federal Board of Vocational Education ..... Enid
McBride, H. F., II, 1903
McBride, J. F., II, 1904, R. F. D. 4 ..... New Market, Tennessee
McBride, John D., V, 1911, Bishop's Clothing Company ..... Stil water
(McBride) Matherly, Iva, IV, 1910, at home ..... Newland, North Carolina
McBride, R. Vernon, V, 1915, Commission Business ..... Pittsburgh, Pennsylvania
McCall, J. H., I, 1908, Instructor in Agriculture ..... Vienna, Illinois
McCarrel, Fred, VI, 1916, Assistant Professor of Education, O. A. M. C. ..... Stillwater
McCarrel, Mrs. Fred, VI, 1918, Teacher in Public Schools ..... Stillwater
McCaslin, W. W., II, 1912, Electrical Division, Panama Canal, Box 361 ..... Balboa, Cana lZone
(McClure) Nolen, Marguerite S., V, 1914, at home ..... McAlester
McCollom, Walter, V, 1917, 313 East Watts ..... El Reno
McConnell, Marjorie, VI, 1915, Teacher, Domestic Science ..... Sand Springs
McElroy, C. E., II, 1917 ..... Pineland, Texas
McElroy, Clarence H., I, 1906, Associate Professor of Bacteriology ..... Stillwater
McGee, Iris, IV, 1920, Box 128 ..... Leedey
McIlvain, Charles, I, 1913, Farmer ..... Ponder, Texas
*McIntyre, J. C., II, 1911
McKay, M. B., VI, 1911, Ass't. Plant Pathologist, Oregon Agricultural College, or
2723 Jackson Street ..... Corvallis, Oregon
McKee, Calvin, VII, 1920, The Varsity (part owner) ..... Stillwater
McKemie, Glen, I, 1920, Assistant County Agent, or 224 W. 6th ..... Oklahoma City
McKnight, Goldia, VI, 1920, High School Teacher ..... Cushing
McLelland, William, I, 1914, Farmer ..... East Point, Louisiana
(McLelland) Hogaboom, Mathilde, VI, 1914, at home, 1733 34th Avenue ..... Seattle, Washington
McMullin, Samuel L., II, 1909
McNeely, Oscar Dubois, II, 1920, 1st Lt., 31st Artillery Brigade ..... Camp Lewis, Washington
McPheeters, A. A., I, 1912, 527 E. Fourth Street ..... Fairbault, Minnesota
McPheeters, Marguerite, IV, 1912, Professor of Home Economics ..... Edmond
McPheeters, Martha, IV, 1913, Ass't. State Demonstration Agent ..... Stillwater
McPheeters, T. R., VI, 1917, Superintendent of Schools ..... Edmond
McPhecters, W. H., II, 1909, Assistant Professor, Texas A. and M. ..... College Station, Texas
McReynolds, A. B., II, 1899, Box 216 ..... King City, California
McReynolds, S. A., III, 1902, Chemist, 2055 West Adams Street ..... Chicago, Illinois
McTaggart, Ernest D., VII, 1920, 208 West Street ..... Stillwater

Madigan, Blanche, IV, 1917, Teacher of Home Economics, or 703 E. Warner ..... Guthric
Madigan, Gladys, VII, 1919, State Market Commission, State Capitol ..... Oklahoma City
Mahaffey, Max, II, 1918, Central Dehydrator ..... El Dorado, Kansas
Mallory, Maisie, VI, 1918
Malone, J. S., I, 1900, County Agent ..... Tulsa
*Mannheimer, Ruth, IV, 1915
Mantle, David Leroy, II, 1918, 233 W. Jefferson, Principal High School ..... McAlester
Mantle, Guy, I, 1915, Teacher, College of Missions ..... Indianapolis, Indiana
(Marble) Canfield, Mable, VI, 1918, at home, 2707 Boome Street ..... Ames, Iowa
Marker, Walter, I, 1914, National Life Insurance, 1636 West Park ..... Oklahoma City
Markwell, Earl D., I, 1919, Instructor in Horticulture, O. A. M. C. ..... Stillwater
Markwell, Rachel, IV, 1919, Box 52 ..... Choctaw
(Markwell) Shaw, Hazel, VI, 1918, at home ..... El Reno
Maroney, Hugh, V, 1917, Care 502 West Street, Stillwater, Okla. ..... Somewhere in Mexico
Marple, Vern, III, 1904, American Bank & Trust Company ..... Denver, Colorado
(Marsh) Hansen, Corinne, IV, 1915, at home, 1078 East Ocean Avenue, Long Beach, California
Marsh, Venus Lee, V, 1913, Teacher, 606 North Fourth ..... Phoenix, Arizona
Marsh, Walter R., II, 1916, 5029 West 23rd Street ..... Cicero, Illinois
Marsh, William, I, 1928, Route 3 ..... Chickasha
Martin, A. Frank, VI, 1920, Principal, High School ..... Altus
Martin, A. O., VI, 1919, Teacher ..... Brinkman
Martin, Esther, IV, 1919, Home Economics Instructor ..... Duncan
Martin, Ewing, VI, 1917, American State Bank ..... Okmulgee
*Martin, J. Elmer, V, 1917
Marx, Loyd, II, 1915, Mercantile Business ..... Pawnee
Marx, Myron, II, 1917, Mercantile Business ..... Pawnee
Mason, Will J., II, 1916, 1st Lt., 27th Inf., Schofield Barracks ..... Honolulu, Hawaii
Mathews, R. N., V, 1917, Care Bigheart Refining & Production Co., Box 354 ..... Bigheart
Mathieu, Elro, I, 1917 ..... Lawton
Mayall, J. S., II, 1911, 136 West Vernon Avenue ..... Los Angeles, California
Mayer, Sylvia, IV, 1915, Teacher of Domestic Science, or Box 1657 ..... Drumright
Means, P. E., II, 1908, 1520 East Third Street, or Oklahoma Iron Co ..... Tulsa
Melton, F. Armon, V, 1915, Geologist ..... Okmulgee
Melton, W. A., II, 1913, 9-A West 17th, or Bradstreet Oil Refinery ..... Tulsa
Merrifield, F. R., I, 1913, Box 466 ..... Woodward
Merrill, Arthur J., II, 1913, Engineer, 604 Park Avenue ..... Charleston, West Virginia
Merry, George, V, 1913, Chief Chemist for Consumers Refining Co., or Box 372 ..... Cushing

*Deceased.

Merydith, C. S., I, 1912, Manager of England Farms, R. R. 6, Box 4 ..... Ponca City
Miller, Bertha, V, 1916, at home ..... Beeville, Texas
Miller, Ella Nora, VI, 1914, Postgraduate Work, Iowa State College ..... Ames, Iowa
Miller, Esther Caroline, IV, 1914, Box 21 ..... East Enid
*Miller, L. C., I, 1900
Miller, Maude, III, 1903, Bookkeeper ..... San Antonio, Texas
(Miller) Webb, Wilma Viola, IV, 1914, at home, Care R. T. Webb, Wagoner Electric Company ..... St. Louis, Missouri
Millikan, Charles, V, 1917, 235 Amber Street ..... Pittsburg, Pennsylvania
Miltimore, Cora A., V, 1899, Librarian, University of Florida, or 1908 West University Place ..... Gainesville, Florida
*Mitchell, Joe, VI, 1915
Mitchell, L. C., V, 199, Chemist, Wilson & Company, Meat Packers ..... Chicago, Illinois
Mitschrich, M. F., II, 1913, Designer for Maloney Electric Company, or 4562 Park View Place ..... St. Louis, Missouri
Mittendorf, T. H., I, 1917, Armour Packing Co., or 5944 Sacramento Avenue, Chicago, Illinois
(Monday) Roberts, Beulah, IV, 1916, at home, 503 North Durland ..... Oklahoma City
Moore, A. I., I, 1903, Minister, Box 832 ..... Kusa
Moore, Charles S., V, 1920, Graduate Student Assistant in Chemistry, O. A. M. C., Stillwater
Moore, Helen Kyger, VI, 1916, at home, Ramsey Street ..... Stillwater
Moore, J. Allen, V, 1911, Dentist, 1376 Pearl Street ..... Denver, Colorado
Moore, Raymond H., V, 1903, County Judge ..... Stillwater
Moorman, Helen, IV, 1916, Teacher of Domestis Science, High School, or 310 West Ninth Street ..... Chandler
Moote, Truman P., II, 1910, Room 524, Frick Building ..... Pittsburgh, Pennsylvania
Morgan, Bernice, V, 1904, Stenographer, Oregon State Bank ..... Bend, Oregon
*(Morgan) Robinson, Vera, IV, 1917
Morris, Clinton, III, 1898, Box 803 ..... Macon, Georgia
Morris, O. M., I, 1896, Professor of Horticulture ..... Pullman, Washington
(Morrison) Berry, Edwina, III, 1907, at home, 802 Duck Street ..... Stillwater
(Morrison) Harrison, Virginia, VI, 1915, Stenographer, President's Office ..... Stillwater
*Morrow, C. E., II, 1903
Morrow, Bertha, J., IV, 1914, Teacher ..... Broken Arrow
(Morrow) Hall, Ella Mary, IV, 1914, at home, Route 3, Box 38 ..... Perkins
(Morrow) Watkins, Jessie, III, 1903, Route 2 ..... Tulsa
(Moseley) Peck, Mossie, IV, 1919, at home ..... Stillwater
Moseley, Frances, VI, 1917, Teacher, Murray State School, or Box 106 ..... Tishomingo
*(Moskedoll) McArthur, Olga IV, 1911
Moyer, O. J., I, 1915 ..... Deer Creek
Mullen, Clyde, I, 1915, Care Oklahoma Farmer-Stockman, or 1603 West 39th, Oklahoma City
Muncie, Blanche, IV, 1917, Teacher ..... Wynnewood
Murphy, Henry F., I, 1918, Instructor in Agronomy, O. A. M. C. ..... Stillwater
Murray, Clive E., I, 1917, R. F. D. 1 ..... Kenefick
Murray, James P., II, 1919, Empire Gas and Fuel Company, Box 438 ..... Duncan
Musgrave, Letha, IV, 1919, Box 871 ..... Plainview, Texas
Myers, Ruth, IV, 1919, Instructor in Home Economics, O. A. M. C. ..... Stillwater
Myers, S. E., III, 1899, A. T. & S. F. Railway Company ..... Perry

Nash, Byron M., II, 1917 ..... Paden
Naylor, H. R., I, 1916, 723 West Watts ..... El Reno
Neaves, Eunice, IV, 1920, Box 142 ..... Ninnekah
Needham, I. H., I, 1915, 108 N. First ..... Ponca City
Needham, Ollie, II, 1909, Westinghouse Electric & Manufacturing Company, or 7725 Brashear Street ..... Wilkinsburg, Pennsylvania
Neerman, Katherine, V, 1917, at home, 210 Duncan Street ..... Stillwater
(Neilson) Taylor, Mary, III, 1903, at home, Eleventh and E Streets ..... Perry
Nellis, H. W., II, 1912, Engineer ..... Gatun, Canal Zone
Nelms, E. B., VI, 1918, County Agent ..... McAlester
Nelson, Abigail E., III, 1907, Druggist, No. 1 R Street, N. E. ..... Washington, D. C.
(Nelson) Chandler, Lila E., II, 1903, at home, No. 1 R Street, N. E. ..... Washington, D. C.
Nelson, Cyrus, III, 1903, Physician and Surgeon ..... Beaumont, Texas
Nelson, Ivo A., V, 1917, at home, Knoblock Street ..... Stillwater
Nelson, J. A., III, 1905, Physician, No. 1, R Street, N. E. ..... Washington, D. C.
Nelson, Joseph S., II, 1917, 1522 North Broadway ..... Oklahoma City
Nelson, Stella, III, 1903, No. 1 R Street, N. E. ..... Washington, D. C.
Nelson, Vinita, IV, 1916, Instructor in Home Economics, Box 794 ..... Ponca City
Netick, Joe, II, 1917, Box 881 ..... San Antonio, Texas
Newman, Leo M., II, 1910, Carter Oil Company ..... Tulsa
(Newman) Batson, Eleanor, V, 1914, at home, 310 N. Brearly Street ..... Madison, Wisconsin
(Newman) Frenzel, Iva F., IV, 1912, 5512 Ingleside Avenue ..... Chicago, Illinois
(Newcomb) Crom, Bonnie, III, 1907, at home, 2513 North Clark ..... Chicago, Illinois
Newell, Rose, VI, 1917, 914 Gentry ..... Henryetta
*Newland, Mrs. Minnie, V, 1912
North, Esther A., III, 1909, Teacher, or 203 Blaine Avenue ..... Geary
North, Kate, IV, 1912, 758 South Third Street ..... San Jose, California
Notson, F. Carl, II, 1916, 905 Keeler Avenue ..... Bartlesville

O'Brien, G. Edwin, I, 1913, 1721 East 12th Street ..... Des Moines, Iowa

*Deceased.

Odor, Hesper Evelyn, IV, 1919 ..... Arcadia
Oldham, Albert, V, 1915, 314 North Taylor ..... Eldorado, Kansas
(Oldham) Doty, Rhodella, IV, 1917, at home ..... Stillwater
Oldham, Lola, IV, 1919, Instructor of Home Economics, Murray State School, or Box 126 ..... Tishomingo
Olentine, Fred B., III, 1906, Physician and Surgeon, St. Anthony's Hospital, Chicago, Illinois
(Olentine) McNeely, Hazel, IV, 1918, at home, Keefton Street ..... Muskogee
Olmstead, Audrey Ferguson, IV, 1919, at home, Camp Jackson ..... Columbia, South Carolina
Olmstead, Merritt E., V, 1915, Captain, 61st Infantry, Camp Jackson, Columbia, South Carolina
Olmstead, Nora, IV, 1919, Teacher, Box 147 ..... Collinsville
Orr, Don M., I, 1918, Teacher, or Box 607 ..... Madill
Orr, Paul F., V, 1915, Harvard Medical School ..... Boston, Massachusetts
Osborn, John, II, 1906
(Oschman) Allen, Maude, V, 1912, at home, or Box 133 ..... Nowata
(Oschman) Ross, Hattie, III, 1907, at home, or Box 85 ..... Claremore
Otey, M. John, V, 1902, Financial Secretary and Purchasing Agent, O. A. M. C., or 516 Duck Street ..... Stillwater
Oursler, A. C., I, 1910 ..... Mannsville
Oursler, Anna Lovina, V, 1914, Teacher, 529 West Canadian ..... Vinita
(Oursler) Taylor, Elizabeth, VI, 1912, at home, or Box 81 ..... Stillwater
Owsley, William A., I, 1918, Farmer, Route 2 ..... Pawnee

Painter, Ray H., V, 1912, Box 95, U. S. Entomological Laboratory ..... West LaFayette, Indiana
Parker, Hazel, IV, 1917, Teacher, Route 5 ..... Stillwater
Patterson, Gladys, V, 1919, Box 98 ..... Walters
*Patterson, Warren H., II, 1915
Payne, Loyal F., I, 1912, Associate Professor, Poultry Dept., K. S. A. C., Manhattan, Kansas
Payne, William F., V, 1915, Care Dolman House ..... Graham, Texas
(Pearson) Melton, Thirza, IV, 1913, at home, 9-A West 17th ..... Tulsa
Peck, C. P., II, 1914, The Tiger Lunch ..... Stillwater
Peck, Harold L., II, 1915, Supt. of Buildings, O. A. M. C. ..... Stillwater
Peck, O. T., II, 1908, The Tiger Shop, 221 Knoblock ..... Stillwater
Percival, Kathryn, IV, 1919, Box 248, Teacher ..... Yale
Percy, E. F., I, 1920 ..... Thomas
Pierson, James W., I, 1916, Farmer and Stockman ..... Pond Creek
*Pierson, Helen, VI, 1918
Pigg, H. F., II, 1902, Assex Company ..... Mineville, New York
Poole, Grace, VI, 1917, Stenographer, Extension Division, O. A. M. C. ..... Stillwater
Pochall, R. A., II, 1910, 119 West 14th Street ..... Muscatine, Iowa
(Potter) Cox, Hulda, IV, 1920, at home, 317 Duncan Street ..... Stillwater
Potts, F. M., I, 1912, Farmer, R. F. D. 3, Box 4 ..... Dexter, Michigan
Powell, Bessie, IV, 1918, Teacher, Highland Park, R. F. D. 1 ..... Chattanooga, Tennessee
Priest, Stella, V, 1912, Instructor in English, O. A. M. C. ..... Stillwater
Putman, O. L., I, 1918, Box 459 ..... Wirt

Radnich, Helen, IV, 1916, Teacher, or Box 147 ..... Fairfax
Ransom, George R., I, 1916 ..... Stillwater
Ransom, Harry, I, 1917, Dairy Department, O. A. M. C. ..... Stillwater
Rapp, C. W., I, 1915, Department of Horticulture, University of Arkansas, or 370 Arkansas Avenue ..... Fayetteville, Arkansas
(Rapp) Tolbert, Irma, IV, 1917, at home, 1016 South Barker ..... El Reno
Ratcliff, J. A., I, 1907, Route 2, Box 81 ..... Tyron
Reed, Fred A., II, 1911
Rector, Fred L., V, 1920, National Industry Conference Board, 10 E. 39th St., New York City
Reeve, C. T., II, 1907, Electrical Engineering and Superintendent, 128 Mohawk Street ..... Choes, New York
Reeve, John Rumsey, II, 1915, Engineer ..... Hurley, New Mexico
*Regnier, C. E., III, 1899
Regnier, M. A., II, 1911
(Reid) Arrington, Grace, IV, 1913, Teacher ..... Warner
Reid, Guy C., II, 1916, Architect, 429 West 23rd Street ..... Oklahoma City
Reynolds, E. B., I, 1914, Experiment Station, Texas A. and M. College, College Station, Texas
Reynolds, F. S., I, 1915, 709 West Ninth ..... Oklahoma City
Reynolds, Oris H., II, 1914, 1812 Pendleton Avenue ..... Kansas City, Missouri
Rhoades T. W., IV, 1913, Oil Business, Box 349 ..... Burkburnett, Texas
Richards, Hattie, IV, 1912, Teacher in High School ..... Denver, Colorado
Richman, Maude, VI, 1916, Home Economics Supervisor, State Board of Vocational Education, State Capitol ..... Oklahoma City
(Richman) Powers, Mabel, V, 1915, at home ..... Oklahoma City
(Richman) White, Elizabeth, V, 1915, at home, 127 N. Atheman ..... Wichita, Kansas
Rinehart, Virgil, I, 1917 ..... Ramona
Ritter, L. B., V, 1910, Chemist, 300 East 4th Street ..... Oklahoma City
Roberts, Clarence, I, 1915, Oklahoma-Farmer Stockman, Oklahoman Building, Oklahoma City
Roberts, D. M., VI, 1919, Box 131, Superintendent of Schools ..... Geary
Robertson, Ruben, I, 1917, Farmer, Box 91 ..... Tuttle
Robinson, A. G., III, 1913
Robinson, Joe L., I, 1916, Farm Crops Bureau, Iowa State College ..... Ames, Iowa
Robinson, William B., I, 1917

*Deceased.

(Rockey) Evans, Nellie, VI, 1914, at home, 119 West 25th Street ..... Oklahoma City
Roeser, Harry M., II, 1914, Bureau of Standards ..... Washington, D. C.
(Rogers) Faulds, Almira, IV, 1910, at home, Route 1 ..... Clearwater, Florida
(Rogers) McDowell, Bertha, I, 1916, at home, Box 824 ..... Pawhuska
Roope, Ruth, IV, 1919, Box 106 ..... Evanston, Wyoming
Rose, Rollin N., I, 1915
*Rosenbaum, William, VI, 1918
Ross, James K., II, 1910, Hardware Merchant ..... Madill
Ross, Sam I., II, 1911, Instructor in Mechanical Engineering ..... Ft. Collins, Colorado
(Ruble) Warren, Bertha, III, 1903, at home, 127 East 17th Street ..... Ada
Rudd, E. L., II, 1912, 400 West 118th Street, Apartment 35 ..... New York City
Rush, W. S., II, 1905,
Russell, Carl, I, 1914, Manager, Russell Seed Company ..... Ardmore
Russell, Margaret, IV, 1917, Teacher, 1434 West 39th Street ..... Oklahoma City
Russell, Mary Mamie, IV, 1915, Teacher, 1434 West 39th Street ..... Oklahoma City
(Ryno) Robertson, Madeline, IV, 1913, at home ..... Agra

Santee, L. A., II, 1913, Layton-Smith, Architect, 701 Majestic Building ..... Oklahoma City
Savage, Orville M., I, 1916, Savage Motor Co., 200 North First Street ..... Ponca City
Schaefer, Paul, II, 1915 ..... Mountain View
Schnurr, Agatha, IV, 1918, Stenographer for Dr. Davis ..... Woodward
Schnurr, Cornelius, II, 1911, Box 246 ..... Cisco, Texas
Schreiber, S. C., I, 1913, 514 North Lake Street ..... Madison, Wisconsin
Schwark, Conrad W., I, 1914, Teacher ..... Canon City, Colorado
Scott, Christian B., VI, 1920, Teacher, High School ..... Altus
Scott, E. M., II, 1913, 1511 West Street ..... Los Angeles, California
Scott, Izora, V, 1915, Graduate Student, University of California, or
2425 College Avenue ..... Berkeley, California
Scott, J. Herman, II, 1917 ..... Covington
Scott, Wiley, I, 1915, Financial Secretary, Central State Normal ..... Edmond
Scrivener, Russell, I, 1916 ..... Maysville
Scroggs, Ada, VI, 1919 ..... Perkins
Scruggs, P. G., I, 1915, Cameron State School of Agriculture ..... Lawton
Seeger, E. E., I, 1913
Selement, F. J., II, 1910 ..... Yukon
Selph, Layla, IV, 1918, Student, Oklahoma A. and M. College ..... Stillwater
(Selph) Wilson, Nina, IV, 1915, at home, Box 105 ..... Valliant
(Semke) Harrington, Grace E., V, 1906, Teacher ..... Garber
(Sexauer) Lewis, Dorothy, IV, 1916, at home, 320 Summit Street ..... Bowling Green, Ohio
Shallenberger, Garvin, V, 1912, Ass't. in Chemistry, Beloit College ..... Beloit, Wisconsin
Shaw, Anna M., VI, 1910, Teacher of Home Economics, High School ..... Marietta
(Shaw) Dixon, Ava, IV, 1914, Box 177 ..... Healdton
(Sheets) Smith, Grace, IV, 1916, at home, Box 862 ..... Healdton
Sherwood, W. C., I, 1918
Shiflett, H. D., I, 1913, Graduate Student, Oklahoma A. and M. College ..... Stillwater
Shiflett, Riley F., I, 1914, Route 92 ..... Goodwell
Shiflett, R. C., I, 1911, Teacher ..... Goodwell
Shiller, H. H., II, 1917
Shinn, E. H., I, 1917, Capitol, 1735 F Street N. W. ..... Washington, D. C.
Shiry, E. E., VI, 1914 ..... Lipscomb, Texas
Shively, R. Rex, V, 1902, Glass Works, or 204 Newton Street ..... Fairmont, West Virginia
Short, Robert, I, 1913 ..... Ardmore
Sieglinger, John B., I, 1913, Agricultural Experimental Work, Box 228 ..... Woodward
Sieglinger, Leona, VI, 1919, Instructor in Physics, O. A. M. C. ..... Stillwater
Simank, Ben O., II, 1915, 1206 Merchants Building, 605 South Stoner St., Shreveport, Louisiana
Simank, E. W., II, 1914, 1859 East 97th, Suite 11 ..... Cleveland, Ohio
Skinner, E. Ray, VI, 1919, Instructor in Public Speaking, High School ..... Sand Springs
Smelzer, C. E., II, 1902, Physician, 128 North Horton Street ..... Jackson, Michigan
Smith, A. Ray, I, 1915 ..... Muskogee
Smith, C. Ray, V, 1910, Real Estate and Investments, 616 Main ..... Stillwater
Smith, Elwin J., II, 1914, 1020 New Hampshire Street ..... Lawrence, Kansas
Smith, G. C., VI, 1917, Parish Agent, P. O. Box 305 ..... Baton Rouge, Louisiana
Smith, Joe G., I, 1911, Real Estate Business, or 1912 South Ervay Street ..... Dallas, Texas
Smith, John Graham, I, 1914, Stock Farming, Route 1 ..... Newlin, Texas
Smith, R. R., V, 1913
*Smith, Stewart G., III, 1906
Smith, Willie C., I, 1920, Box 440 ..... Mangum
Sneary, Grace, VI, 1920, 322 North Hightower, Teacher in High School ..... Altus
Snyder, Beryl, VI, 1917, Teacher ..... Burke, South Dakota
(Snyder) Jacobs, Georgia, IV, 1913, at home ..... Aitkins, Minnesota
Southwick, Ivan, II, 1918 ..... Garber
Spalding, John A., I, 1905, Wholesaler ..... North Enid
Spear, Maude, II, 1915, at home
(Spear) Scrivner, Mary, IV, 1915, at home ..... Maysville
*Spencer, Earl L., I, 1915
Spencer, Joe R., I, 1918, County Agent, Box 624 ..... Claremore
Spencer, Tracy Henson, IV, 1918, at home, or Box 624 ..... Claremore
Speidel, M. John, I, 1910, Farmer, R. F. D. 1 ..... Washington, Iowa

*Deceased.

Spohn, Carolyn, IV, 1915, at home, Route 1 ..... Glencoe
Spohn, Gladys, VI, 1918, 15 Carroll Street ..... Hammond, Indiana
Spohn, R. E., II, 1910, Farmer, Route 1 ..... Glencoe
(Spurrier) Hedger, Kara, IV, 1917, at home, or Box 541 ..... Idabel
Stallings, Ida, IV, 1915, Bacteriologist, 303 Dugan-Stuart Building ..... Hot Springs, Arkansas
Stanley, May, VI, 1914, Teacher, 520 West 15th Street ..... Pueblo, Colorado
(Staedelin) Ewing, Maude, IV, 1919, at home ..... Wilson
Stebbins, A. A., II, 1909, Postmaster ..... Garber
Stebbins, Robert R., V, 1909, Farmer ..... Fairmont
Stevens, H. I., III, 1904, Chemist
Stevens, Margaret McKittrick, IV, 1914, Government Work ..... Somewhere in Mexico
Stewart, Eldridge, II, 1918, Architect, 1717 1-2 Eighth Street ..... Wichita Falls, Texas
Stewart, F. L., II, 1909 ..... Tulsa
(Stewart) Jesse, Annabel, V, 1911, at home, or Box 24 ..... Supply
Stiles, George W., III, 1900, Bureau of Chemistry, U. S. D. A., 400 P. O. Bldg., Denver, Col.
Stiles, Mrs. Lottie, VI, 1920, Teacher, Public Schools, or Box 37 ..... Stillwater
Stinson, Chester C., I, 1914, Box 854, County Agent ..... Lawton
Stokesberry, Lawrence, I, 1919, Smith-Hughes Teacher ..... Gould
Stout, Charles G., II, 1916
(Stover) Gougler, Ida, V, 1908, at home, 2007 Elm Street ..... Quincy, Illinois
(Stover) Swander, Nanna, V, 1909, at home, 713 East Moses ..... Cushing
Straub, Otto, I, 1910
Surtees, L. Vincent, I, 1917, 808 South Cincinnati, or Sinclair Oil Company ..... Tulsa
Sullivan, Cyril C., I, 1916, Room 400, City Hall ..... Oklahoma City
Swaliy, Lucy, IV, 1918, Teacher, Box 22 ..... Newkirk
Swim, Leslie L., II, 1920, 180 Summit Street ..... Little Rock, Arkansas
Swim, Paul M., II, 1920, Mo. Pac. R. R. Co. ..... Van Buren, Arkansas
(Swope) Dolde, Emma H., III, 1898, 417 East Orange Avenue ..... Monrovia, California
Swope, Harold M., II, 1913, Engineer for A. T. & S. F. ..... Topeka, Kansas

Talbot, A. E., I, 1912, 1329 Manheim Place ..... Kansas City, Missouri
(Talbot, Buchanan, Gertrude, IV, 1914, at home, 12 North Seventh ..... Marshaltown, Iowa
Talbot, Nora A., VI, 1910, Professor of Domestic Art, O. A. M. C. ..... Stillwater
(Tankersley) McAninch, Lola, III, 1905, Teacher, S. E. S. Normal ..... Durant
Tankersley, P. A., VI, 1919, Route 3 ..... Oklahoma City
Tarr, W. A., II, 1904, 1316 Ross Street, Professor, University of Missouri, Columbia, Missouri
Tate, J. A., II, 1909, Sinclair Oil Company ..... Tulsa
(Taylor) Ellis, Jeannette, III, 1907, County Home Dem. Agent, or Box 113 Dresden, Tennessee
(Taylor) Keith, Jatta, IV, 1916, at home ..... Magnolia, Arkansas
(Taylor) Swim, Inez, IV, 1915, at home ..... Maramec
(Temming) Casteel, Ruth E., IV, 1912, at home ..... Sand Springs
(Thatcher) Best, Jessie, III, 1897, at home, 729 Center Street ..... Alva
Thomas, Harley O., I, 1920, Manager, Ford Garage ..... Stillwater
(Thomas) Hurst, Martha, IV, 1917, at home ..... Medford
Thomas, J. R., I, 1915, County Agent, 506 South Missouri Street, or Box 528, Boswell, N. M.
Thomas, Olive B., IV, 1916, Teacher, Box 5 ..... Edmond
Thompson, Eugene Ross, I, 1912, Smith-Hughes Teacher of Agriculture ..... Luther
Thompson, Pauline, IV, 1916, Teacher, 1811 Fifth Street ..... Port Arthur, Texas
Thompson, W. Grady, VII, 1916, Manager, College Clothiers ..... Stillwater
Thornberry, J. W., I, 1904
Thornberry, W. T., II, 1903
(Thoroughman) Williams, Maude, III, 1904, at home ..... Perkins
Tibbetts, F. J., II, 1910, General Electric Company, or 825 Seaboard Bldg., Seattle, Washington
(Tice) Woodson, Eula, V, 1915, at home, 120 Rowland Avenue ..... Mansfield, Ohio
Tillotson, A. K., V, 1912
Tillotson, Bonnie, III, 1909, 320 South Macomb ..... El Reno
Tilton, Richard T., I, 1920 ..... Nardin
Tingle, J. T., I, 1915, American Guaranty Company ..... Hooper, Colorado
Tippie, George A., VI, 1917
Tongue, George F., II, 1912, 2408 Forest Avenue ..... Dallas, Texas
Tourtellotte, Evart, I, 1914, 1007 Colcord Building ..... Oklahoma City
Treeman, Herbert L., II, 1909, 156 Exeter Place ..... Buffalo, New York
Trekel, Edna, IV, 1918, Teacher, Box 146 ..... Tishomingo
Trekell, Lester, I, 1920 ..... Enid
Trent, Dover, V, 1913, County Agent ..... Okmulgee
Trueax, C. P., II, 1911, 5633 Cottage Grove ..... Chicago, Illinois
Turner, Homer, I, 1915, Teacher ..... Indiahoma
Turner, Pearl, VI, 1917, Teacher ..... Porum

Utt, Orville G., II, 1912, 513 East End Avenue ..... Pittsburgh, Pennsylvania

Vance, Alfred William, II, 1916 ..... Kiowa, Kansas
Vance, Leon R., I, 1914 ..... Kiowa, Kansas
Vandervoort, L. A., II, 1912, Box 788 ..... Ranger, Texas
Venters, H. D., V, 1915, Ass't. Bacteriologist, State Board of Health ..... Tampa, Florida
(Vermillion) Pearce, Ruth, IV, 1918, at home ..... Edmond
*(Vermillion) Peck, Rachel, VI, 1916
Vezey, E. E., II, 1910, Superintendent of Schools ..... Bryan, Texas

*Deceased.

Vogel, Nira Dent, VI, 1920, 614 North Bell, Teacher in High School ..... Shawnee

Wade, A. Earl, I, 1918, Route 1 ..... Douglas
Walcott, Clint, II, 1920, City Engineer's Office, or Y. M. C. A. ..... Tulsa
Walker, Belle, III, 1902, at home, 229 1-2 West 4th Street ..... Oklahoma City
(Walker) Durand, Fay B., III, 1905, at home ..... Chicago, Illinois
Walker, Ethel, V, 1902, Teacher, or 305 East Palm ..... Orange, California
Walker, Florence, III, 1903, 1330 Massachusetts Avenue ..... Washington, D. C.
Walker, K. D., I, 1913, Farmer, R. F. D. 1, Box 40A ..... Wyandotte
Walker, Louis Eugene, V, 1914, Teacher ..... Fort Worth, Texas
Walker, Morgan, II, 1919, Care Empire Oil Company, or 321 North State St., Eldorado, Kansas
(Walker) Swinford, Velma, III, 1901, at home, 435 Forest Avenue ..... Polo Alto, Calif.
Walker, Veda, III, 1906, Librarian ..... Compton, California
*Walters, Julia, IV, 1913
Walters, Joe, I, 1917, Smith-Hughes Teacher ..... Macomb
Walters, Marguerite P., IV, 1910, Librarian, Free Public Library ..... Henryetta
Walters, Minnie D., IV, 1910, 207 West Street, Graduate Student, O. A. M. C. ..... Stillwater
Ware, Alta, IV, 1915, Teacher in High School ..... Henryetta
Warren, Jessie, IV, 1915, Teacher ..... Olathe, Colorado
Waters, George A., Jr., I, 1916, Farmer and Stockman ..... Pawnee
(Watkins) Quinn, Leona, VI, at home ..... Helena
Watrous, Robert O., II, 1910, Jeweler, 116 East Broadway ..... Cushing
Watson, Captain D. H., II, 1911, Care R. F. D. ..... Chandler
Watson, Florence, VI, 1914, County Demonstration Agent ..... Wagoner
Watson, W. E., I, 1913, County Agent ..... Farmington, Minnesota
Watson, W. P., II, 1913, 415 Millville Avenue ..... Hamilton, Ohio
Weaver, Earl, I, 1913, Associate Professor of Animal Husbandry, Iowa State College, Ames, Iowa
Weaver William Carl, VII, 1916, 5424 Lydia ..... Kansas City, Missouri
Webb, A. E., I, 1912, Teacher ..... Two Harbors, Minnesota
(Webb) Epperson, Leona, IV, 1914, at home, 1202 Mangum Street, Durham, South Carolina
Webb, Howard Floyd, I, 1914, Bacteriologist, St. Riga Hospital ..... Lima, Ohio
Webb, Nix, II, 1918, Route 2 ..... Chetopa, Kansas
Webb, Robert T., II, 1918, Engineer, Wagoner Electric Company ..... St. Louis, Missouri
Weber, A. G., V, 1915, Doctor, University Hospital ..... Oklahoma City
*Weber, Herbert, II, 1915
Wells, E. E., II, 1913
Werner, Ida Antonia, V, 1912
West, William E., I, 1917, Box 58 ..... Warner
Wheeler, Birdie, VI, 1916, Teacher, Box 156 ..... Wann
(Wheeler) Colglazier, Pearl, IV, 1918, at home ..... Stillwater
Wheeler, C. P., I, 1917, Farmer ..... Blackwell
Wheeler, Mabelle, IV, 1920, at home, or Box 364 ..... Blackwell
Whitford, Mrs. Helen Tilton, VI, 1918
Whillock, Beuna, VI, 1917, Teacher, 1124 Main Street ..... Stillwater
Whipple, A. F., V, 1914, 2420 Fourth Street ..... Port Arthur, Texas
Whipple, John, VI, 1920, Teacher, Ada High School ..... Ada
White, Bob, I, 1919, Instructor in Horticulture, O. A. M. C. ..... Stillwater
White, Harry H., II, 1913, Box 273, Engineer ..... Wynne, Arkansas
Whiteside, A. E., I, 1913, Teacher, 926 S. Eleventh Avenue ..... St. Cloud, Minnesota
Wiar, Pearl, III, 1907, 919 Delaware Avenue ..... Bartlesville
Whitlock, Ernest, V, 1914, 201 Enid National Bank Building ..... Enid
Wiener, Lawrence, I, 1915
Wilber, Philip A., II, 1919, Instructor in Architecture, O. A. M. C ..... Stillwater
Wilbourn, Verda, VI, 1915, Instructor in English, O. A. M. C. ..... Stillwater
Wikel, C. A., II, 1904
Wikel, H. H., II, 1911, Electrical Engineer
Wiley, R. C., II, 1905, Chemist ..... College Park, Maryland
Will, Doris G., II, 1910, Sales Dept., Westinghouse Electric and Mfg. Co., Wilkinsburg, Pa.
Williams, R. L., I, 1913
Williams, Guy P., II, 1910, Electrical Engineer, Goodyear Rubber Company ..... Akron, Ohio
Williams, George J., VI, 1919, Box 15 ..... Ryan
Williamson, Captain Emery, II, 1916, 7th Signal Corps Division ..... Camp Meade, Maryland
(Williamson) Hoke, Carrie, IV, 1915, at home ..... Enterprise, Oregon
Wilson, Clay E., VI, 1911 ..... Kiefer
Wilson, Grace, IV, 1919, Box 104, Y. M. C. A. ..... Tulsa
Wilson, Harry E., II, 1910, Superintendent, A. T. & S. F., 501 Finney, Chilocothe, Illinois
Wilson, Hester, IV, 1918, Box 147 ..... Cordell
Wilson, James, III, 1906, Professor, Cornell University, or 202 Dearborn Place, Ithaca, N. Y.
Wilson, J. M., II, 1917, 1239 Montana Street ..... Chicago, Illinois
Wilson, Lillian Ella, V, 1918, Box 307 ..... Fairfax
Wilson, Orville G., VII, 1916 ..... Pocasset
Winkelman, Magdalan, VI, 1918, Box 95 ..... Supply
Winn, Annalize, IV, 1917, Teacher ..... Le Kemp
Winters, N. E., I, 1911, 213 College Avenue, Graduate Assistant, Cornell Uni., Ithaca, N. Y.
(Wirfs) Tobin, Clair, IV, 1912, at home, 1515 Grant Avenue ..... Denver, Colorado
Withers, Clay A., II, 1904, Mack Block ..... Denver, Colorado
(Wise) Diggs, Blanche, V, 1898, at home, 223 Duncan Street ..... Stillwater
(Wise) Lantz, Mable, IV, 1909, at home, Box 41 ..... Garibaldi, Oregon

*Deceased.

Wise, Oscar, I, 1914.
Witte, Herald, II, 1918, Westinghouse Electric & Manufacturing Company, or
826 Holland Avenue ..... Wilkinsburg, Pennsylvania
Wood, Ray Allen, II, 1914, 433 Ross Avenue ..... Wilkinsburg, Pennsylvania
Wood, Sylvan, III, 1920, Chemist ..... Eldorado, Kansas
Wood, C. A., II, 1908, County Engineer, Court House ..... Stillwater
Woodruff, W. W., II, 1918, Room 822, Empire Gas and Fuel Building ..... Bartlesville
Woodson, J. Clay, II, 1915, Westinghouse Electric & Manufacturing Company, or
120 Rowland Avenue ..... Mansfield, Ohio
Woodson, Marle M., III, 1902, 336 South Flower ..... Los Angeles, California
Woodson, Mortimer, I, 1917, Editor ..... Walters
Woodworth, L. A., I, 1915, 610 North Ash ..... Guthrie
Woodworth, L. E., I, 1905, Care Marland Refinery ..... Ponca City
Woodworth, Clyde M., I, 1910, Agronomy Department, University of Illinois, Urbana, Illinois
Worthington, W. H., II, 1910, Chief Engineer, Care Aultman & Taylor Machine
Company ..... Mansfield, Ohio
(Word) Cherry, Gutha, V, 1914, at home ..... Tyron
Wortman, Leo, I, 1918 ..... Oklahoma City
Wright, N. W., VI, 1917, Room 8, Ostrander Apartments ..... Olathe, Kansas
(Wright) Reid, Gertrude, VI, 1916, at home, 429 West 23rd Street ..... Oklahoma City
Wright, Noah F., VI, 1920, University of Chicago ..... Chicago, Illinois
Wright, Eva IV, 1920, 401 North Seventh Street ..... Clinton
Wright, H. M., II, 1916
(Wright) Wimer, Louise, VI, 1912, at home, Box 131 ..... Midwest, Wyoming
Wyant, Lynton D., II, 1917, 815 West Eleventh Street ..... Tulsa

Young, J. E., II, 1915, 45 South Fourth Street ..... Sharpsville, Pennsylvania
Young, Kenneth R., II, 1914, Government Reclamation Work, Levee Machine
Company I ..... Round Lake, Mississippi
Young, Trissie, VI, 1919, Teacher, Box 142 ..... Ninnekah
(Young) Murphy, Ione, VII, 1920, at home, 305 Washington ..... Stillwater

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